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A COMPARATIVE STUDY OF INTERACTION PATTERNS AND SELF-CONCEPT BETWEEN ADOLESCENT SIBLINGS OF RETARDED CHILDREN AND ADOLESCENT SIBLINGS OF NORMAL CHILDREN

BY

© CAROL RUTH CHRISTIE KNOWLES

A THESIS

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OF MASTERS OF SCIENCE

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled A COMPARATIVE STUDY OF INTERACTION PATTERNS AND SELF-CONCEPT BETWEEN ADOLESCENT SIBLINGS OF RETARDED CHILDREN AND ADOLESCENT SIBLINGS OF NORMAL CHILDREN submitted by CAROL RUTH CHRISTIE KNOWLES in partial fulfilment of the requirements for the degree of MASTERS OF SCIENCE IN FAMILY STUDIES.

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(Supervisor)

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Date June 1st, 1972.

ABSTRACT

The underlying assumption in this study, taken from symbolic interaction theory, was that a person's self-concept develops to a large extent from interactions with significant others in his or her life. The review of literature established that the presence of a mentally retarded child in the family may interfere with or undermine the normal siblings' interactions with significant others. Consequently the development of the normal siblings' self-concept may also be interfered with or undermined. On the basis of these assumptions, the purposes of this study were, first, to learn if there were any significant differences in the interaction patterns between a group of adolescent siblings of the retarded and a group of adolescents who had no retarded sibling (but at least one normal, younger sibling). Specifically, interaction with parents, with peers and with either the retarded or younger sibling was examined. (Although the retarded sibling was not defined as a "significant other" in this study, interaction with the retardate may have had some effect on the self-concept development of the normal sibling and therefore, this area of interaction was investigated also.) Second, if there were differences in interaction, did these differences give rise to significant measurable differences in the self-concepts between the two groups of adolescents?

Twenty-five adolescents who had a mentally retarded brother or sister and twenty-five adolescents who had a normal, younger sibling participated in the study. These two groups were matched on age, sex and socio-economic status.

Two test instruments were used in this research. The first was a modified version of the questionnaire used by F. K. Grossman

(1972) in her study of college-age siblings of the retarded. The intent of this modified questionnaire was to gather information concerning the adolescents interaction with significant others (parents, peers) as well as with their sibling (either retarded or younger). The second test was the Lipsitt Self-Concept Scale. The first test was analyzed, using the chi-square technique, to determine if there were any differences in interaction patterns between adolescent siblings of the retarded and adolescent siblings of normal children. An analysis of variance of composite scores was the statistical measure employed to identify if differences in self-concept between the two groups and within each of the groups. Age, sex and socio-economic status were controlled in the statistical analyses of the data.

Only nine areas of interaction, out of twenty-eight, were significantly different between the experimental and control groups. There were no measurable differences in the self-concepts between the two groups. Therefore, based on the findings from this study, the conclusions were drawn that the presence of a mentally retarded child in the family does not interfere with the normal siblings' interactions with significant others to the extent that the self-concept of the normal siblings is affected. Also, interaction with the mentally retarded child per se does not appear to have any effect on the normal siblings' self-conceptions.

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TABLE OF CONTENTS

CHAPTER PAGE

1 INTRODUCTION 1

Statement of the Problem 1
Focus of the Study 4

2 REVIEW OF LITERATURE 5

Introduction 5
Parent/Child Interaction 5
  Significance of Parent/Child Interaction. 5
  Sibling-of-a-Retarded/Parent Interaction. 7
    Family roles 7
    Impact of parental guilt 9
    Communication with parents 10
    Parental interest. 11
    Other. 12
Peer Interaction 12
  Significance of Peer Interaction. 12
  Sibling-of-a-Retarded/Peer Interaction. 14
Sibling Interaction. 15
  Significance of Sibling Interaction 15
  Normal Sibling/Retarded Sibling Interaction . . . 16
    Guilt. 17
    Identity 17
Positive Effects of Being Sibling of a Retarded. . . . 18
Summary. 20
Specific Objectives of the Study 21

3 SYMBOLIC INTERACTION: A CONCEPTUAL FRAMEWORK. 22

Principles of Symbolic Interaction 22
Theoretical Applications for the Study of Self-Concepts of Siblings of the Retarded 24
Other Factors Affecting Self-Concept 27
  Age 27
  Sex 28
  Socio-economic Status 29
Definition of Terms. 30

CHAPTER PAGE

4 METHODOLOGY 31

- Introduction 31
- The Sample 31
  - Experimental Group 31
  - Control Group 32
- Sample Limitations 33
- Comparability of the Experimental and Control Groups on Socio-Economic Status 34
- Collection of Data 35
- Research Instruments 36
  - Part B 37
  - Part C 38
- Treatment of the Data 41

5 ANALYSIS OF THE DATA 45

- Sample Background 45
- Analysis of Part B of Questionnaire (Interaction Patterns) 47
  - Interaction with Sibling 48
    - Identification with sibling 48
    - Feelings towards the sibling 50
    - Free time spent with sibling 51
    - Responsibility for the sibling 52
  - Interaction with Parents 53
    - Neglect by parents 53
    - Communication in the home about mental retardation 55
    - Parental expectations 55
    - Parental reactions to the mentally retarded child 56
    - Does the retarded child make the family different 56
  - Interaction with Peers 57
    - Social life 57
    - Peer reactions to the retardate 59
    - Extra-curricular activities 60
  - General Information 60
- Analysis of Part B When Age, Sex and Socio-Economic Status Are Controlled 62
- Analysis of Scores on the Lipsitt Self-Concept Scale (Part C of Questionnaire) 80
- Summary of Data Analysis 84

6 DISCUSSION OF RESULTS 89

- Introduction 89
- The Framework 90

CHAPTER PAGE

Sample Bias. 91
The Lipsitt Self-Concept Scale 91
Age Relationship Between the Adolescent and His Retarded Sibling 92
Interaction with Significant Others (Parents, Peers) and with the Retardate 94
Conclusion 99

7 LIMITATIONS AND IMPLICATIONS OF THE STUDY. 100

Limitations of the Study 100
Implications of the Study. 102

BIBLIOGRAPHY 106

APPENDICES 112

Appendix A - Enclosure Letter. 113
Appendix B - Response Form 115
Appendix C - Reminder Letter 117
Appendix D - Demographic Profile of the Experimental and Control Groups. 119
Appendix E - Hollingshead's Occupational Status Scale. 121
Appendix F - Experimental Group Questionnaire. 129
Appendix G - Control Group Questionnaire 142
Appendix H - Summary of Chi-Square Results Based on Responses to Questions in Part B of Questionnaire 151

LIST OF TABLES

TABLE DESCRIPTION PAGE

1 Classification of Questionnaire Items According to Study Objectives 39

2 Percentage and Frequency Distribution of Sample by Age 46

3 Percentage and Frequency Distribution of Sample by Sex 47

4 Percentage and Frequency Distribution of Sample by Socio-Economic Status 47

5 Summary of Results from Part B of Questionnaire--Interaction with Sibling 49

6 Summary of Results from Part B of Questionnaire--Interaction with Parents 54

7 Summary of Results from Part B of Questionnaire--Interaction with Peers 58

8 Summary of Results from Part B of Questionnaire--General Information 61

9 Responses to Question 5, Controlling for Sex 62

10 Responses to Question 5, Controlling for Age 63

11 Responses to Question 5, Controlling for Socio-Economic Status 63

12 Responses to Question 6, Controlling for Sex 64

13 Responses to Question 6, Controlling for Age 65

14 Responses to Question 6, Controlling for Socio-Economic Status 66

15 Responses to Question 10, Controlling for Sex 67

16 Responses to Question 10, Controlling for Age 67

17 Responses to Question 10, Controlling for Socio-Economic Status 68

TABLE PAGE

18 Responses to Question 11, Controlling for Sex. 69

19 Responses to Question 11, Controlling for Age. 69

20 Responses to Question 11, Controlling for Socio-Economic Status. 70

21 Responses to Question 12, Controlling for Sex. 71

22 Responses to Question 12, Controlling for Age. 72

23 Responses to Question 12, Controlling for Socio-Economic Status. 72

24 Responses to Question 14, Controlling for Sex. 73

25 Responses to Question 14, Controlling for Age. 74

26 Responses to Question 14, Controlling for Socio-Economic Status. 74

27 Responses to Question 17, Controlling for Sex. 75

28 Responses to Question 17, Controlling for Age. 75

29 Responses to Question 17, Controlling for Socio-Economic Status. 76

30 Responses to Question 34, Controlling for Sex. 77

31 Responses to Question 34, Controlling for Age. 78

32 Responses to Question 34, Controlling for Socio-Economic Status. 78

33 Responses to Question 41, Controlling for Sex. 79

34 Responses to Question 41, Controlling for Age. 79

35 Responses to Question 41, Controlling for Socio-Economic Status. 80

36 Analysis of Variance of Mean Self-Concept Scores of the Experimental and Control Groups. 81

37 Analysis of Variance of Mean Self-Concept Scores of the Experimental and Control Groups While Controlling for Sex. 82

TABLE PAGE

38 Analysis of Variance of Mean Self-Concept Scores of Experimental and Control Groups While Controlling for Age 83

39 Analysis of Variance of Mean Self-Concept Scores of Experimental and Control Groups While Controlling for Socio-Economic Status 84

CHAPTER 1

INTRODUCTION

Statement of the Problem

Within the past twenty years researchers have focused their attention on the needs and problems of the mentally retarded child--his diagnosis and assessment, his education, his behaviour and his place in society. However, relatively little notice has been given to those who have a direct personal relationship with the retarded individual; namely, his parents and siblings. With the current emphasis in today's society towards community placement of retarded individuals for purposes of education and training, families in increasingly large numbers are expected to retain their retarded child in their homes (Cruikshank, 1972:v; Wolfensburger, 1974).

The presence of a mentally retarded child in the home establishes the family as different and bestows upon its members many problems not faced by the so-called "normal" family. Under these circumstances the mental health of family members and the problems of social interaction, both within the family and with outsiders have become crucial issues in the study of mental retardation. A common belief is that the presence of a retarded child in the home has disruptive effects on the lives of other members of the family (Schonell and Watts, 1956; Tizard and Grad, 1961; Fowle, 1968; Farber, 1968; Schild, 1971; Ross, 1972).

Little empirical research has been directed specifically towards the problems of the normal siblings of the retarded. J. Adams however has pointed out sound reasons for concern about these siblings . . .

> . . .from a preventative perspective, the family with the burden of a retarded child is a family at social and psychological risk and there is real danger that the normal child's development may suffer from emotional neglect, distorted family relationships and roles, and curtailed opportunity for social contacts due to the pressures of caring for the handicapped child. As a result, the siblings may grow up as warped in their capacity for self-fulfillment as, in another way and for another reason the retarded child is . . . (Adams, 1966).

According to several authors (Schreiber and Feeley, 1965; Kaplan, 1968; Farber, 1959, 1960, 1968; Gath, 1972, 1973; Grossman, 1974; San Martino, 1974) the normal siblings face many problems associated with their position as "sibling-of-a-retarded". The general agreement among these authors is that the presence of a retarded child in the home introduces difficulties for the normal siblings in maintaining gratifying interactions with parents, peers and siblings. They (the normal children) have the difficult responsibility of reconciling normal role performances with new tasks required of them to meet and cope with the problems created by the retarded child.

A major problem in attempting to measure the effects of being sibling-of-a-retarded is deciding what aspect of the sibling's functioning to consider. The development of the self-concept has been given more and more attention by researchers over the past twenty years. A growing body of literature indicates that there is a direct link between how one perceives himself and how he functions in his life. Direct relationships have been discovered between self-concept and academic achievement (Coopersmith, 1967; Purkey, 1970), self-actualization (Fitts, et. al, 1971), delinquency (Fitts and Hammer, 1969), intellectual efficiency (Williams and Cole, 1968), level of adjustment (Rogers and Dymond, 1954), personality integration (Fitts, 1965), psychopathologies (Fitts, 1972), identification (Miller, 1970), and interpersonal competence (Rosenberg, 1965; Fitts, 1970).

Moreover, the notion that one's conception of himself develops to a great extent as a result of his interaction with significant others[1] in his environment has been explicated by several self-theorists (Cooley, 1902; Mead, 1934; Sullivan, 1953; Shibutani, 1961; Stryker, 1972; Burgess, 1976). If one accepts the contention that, as Adams and others have already mentioned, siblings of the retarded may have disturbed interaction patterns with significant others, then it is possible that their self-concepts may also be affected.

The self-concept of the normal sibling-of-a-retarded has been chosen for the focus of this study because it is central to the life of the individual. It is at the core of his thinking, motivation and behaviour. A positive attitude towards the self in all aspects of life is a most important determinant of successful life functioning (Fitts, et. al, 1971).

---

[1] The concept of significant others represents the recognition that not all the persons with whom one interacts are given the same priorities or importance, nor do all persons have the same impact on the individual. Interaction between mother and child is the earliest in the process of developing one's self-concept. Other family relationships, with the father and with siblings constitute another primary source of self-conceptions. Adolescents have not only experienced the family interaction but have entered the intense peer relationships found in the school and neighbourhood. In this study, the significant others with whom the adolescent interacts are his parents and his peers.

Adolescent siblings-of-a-retarded are concentrated on in this inquiry for two main reasons. First, adolescents are old enough to respond to the researcher's questions with some degree of maturity and insightfulness and yet young enough that their feelings and insights have not been distorted by the passage of time. Second, and most important, adolescence is the stage in life when self-concept formation is very salient. Erikson and others state that one of the most definitive characteristics of the adolescent is a persistent preoccupation with "who he is" (Erikson, 1963; Gecas, 1971; Rosenberg, 1965).

Focus of the Study

In view of the aforementioned considerations the focus of the present investigation is to determine the effects, if any, a mentally retarded child may have on the self-concept of his normal adolescent siblings. This study is based on the assumptions that (a) an individual's self-concept is largely a product of his interaction with significant others and (b) the presence of a retarded child in the family may interfere with that interaction. Although the retarded child is not necessarily viewed as a significant other by the adolescent, the fact that they both live within the same family implies that some interaction between them probably takes place. This interaction may in some way also interfere with the development of the normal sibling's self-concept and therefore it will be examined as well.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

The following chapter reviews current literature related to interaction and self-concept development. Three major areas of an adolescent's interaction are examined: (1) interaction with parents, (2) interaction with peers, and (3) interaction with siblings (in particular, with a mentally-retarded sibling). Each section begins with a brief review of literature illustrating the significance of interaction for self-concept development in general. The second part of each section focuses specifically on the interaction between the normal sibling-of-a-retarded child and his (or her) parents, peers and (retarded) sibling.

A fourth section considers literature which indicates that there may be no adverse effects or even positive effects on normal siblings of the retarded. Finally, the review of literature is concluded with a statement of the specific research objectives.

Parent/Child Interaction

Significance of Parent/Child Interaction

Several theorists who are concerned with the constructs involving the self accord great importance to parent/child interaction in the development of the child's self-concept (Combs and Snygg, 1959; Wylie, 1961; Adams, 1963; Rosenberg, 1965).

Ruth Wylie, in a critical review of research literature in the area of self-concept theories, summarizes the influence of parent/child interaction on the following aspects of the child's self-concept:

(a) the generalized level of self-regard (e.g. by being loved and accepted the child comes to love himself, and through acquisition of accepted behaviours he comes to respect his own functioning;

(b) the subjective standards of conduct which are associated with his role and individual status;

(c) the realism of his view of his abilities and his limitations and the acceptance of them;

(d) the degree of acceptance in the self-concept of inevitable characteristics (e.g. hostility, jealousy, sex);

(e) the adequacy of his means of appraising accurately his effects on others (Wylie, 1961:121-122).

Morris Rosenberg has investigated the relationship between parental interest in the child and the child's self-concept. He analyzes three different areas of parent/child interaction: (1) parents' knowledge of and relationship with their child's friends, (2) reactions to their child's academic performance and (3) responsiveness to and communication with the child at the dinner table. The results of his study consistently show that parental lack of interest or indifference towards the child is associated with a low or negative self-concept in the child (Rosenberg, 1965:144).

A research programme carried out by the Dede Wallace Centre in Tennessee (a community mental health centre) brings out the importance of interpersonal relationships as a factor in one's self concept.

Specifically this study shows that deviant (or negative) self-concepts are closely associated with deviant interpersonal relationships with significant others. It is shown that persons experiencing relationships that involve expressing affection and inclusion--(inclusion refers to establishing and maintaining satisfactory interaction and association with others and a feeling of being welcome in the relationship (Thompson, 1972:64))--have more positive self-concepts than persons who are lacking such relationships in their lives (Thompson, 1972:62-74). The findings in this study reinforce those described earlier by Rosenberg.

Sibling-of-a-Retarded/Parent Interaction

Family roles - Bernard Farber has done extensive research on families with a mentally-retarded child (Farber, 1959; Farber, 1960; Farber and Jenne, 1963; Farber and Rykman, 1965; Farber, 1968). He has presented interesting insights into the impact a retarded child can have on his normal siblings' family life and their (the normal siblings) relationships with their parents.

When one of the children in the family is mentally retarded Farber believes that the family life cycle is arrested (Farber, 1959: 9-10). The retarded child eventually takes the position of the youngest child in the family regardless of his or her chronological age and stays in that position permanently: thus the family does not emerge from its pre-adolescent stage in the life cycle. Farber's hypothesis is that arrest in the family life cycle results in disruption of family integration because each individual has his anticipated roles frustrated. The normal sibling may be forced to assume the position and behaviour of an older child. This need to redefine and shift roles in the family tends to generate anxiety, frustration and conflict (Farber, 1960:81).

The role of the normal sister expands because the mother obtains the girl's assistance in household duties and caring for the retardate in the home. This role expansion would produce more points of possible conflict between mother and daughter and reduce the opportunity for the girl to participate in extra-familial activities typical of girls her age (Farber, 1959:56). For boys on the other hand the reverse is true. When the retardate lives at home, the normal brother contends to keep out of the way of his pre-occupied mother and find companionship in the school and neighbourhood; his role in the family contracts. Furthermore the mother is likely to be permissive in her relationship with the normal boy since she has little time to pay attention to him. However, when and if the retarded child is institutionalized he or she can no longer serve to divert attention away from the normal brother; consequently the brother is expected to conform more to family routines and often becomes the target of excessively high parental aspirations in order to compensate for the retarded one's failings (Farber, 1969:56-57; Farber and Jenne, 1963a: 66-68). Failure to reach the level of parental expectations may result in feelings of inadequacy and/or worthlessness and consequently affect the individual's self-concept.

Daughters are rated considerably more negatively on traits such as stubbornness, irritability, depression, self-centeredness, bossiness, etc. than are normal sons. Farber concludes that there exist differences in family roles (e.g. norms, responsibility) for the normal brothers and normal sisters and that harmful effects on the sisters' personal adjustment may result from assuming much responsibility in caring for the retarded child (Farber, 1960:82-83).

Further studies support the hypothesis that there is a high sibling role tension for the normal siblings (Fowle, 1968), and that the normal sisters are more antisocial both at home and at school than normal brothers (Gath, 1973; Gath, 1974). Both of these researchers agree that a probable and likely cause for the disruptive behaviour of the girls is (in agreement with Farber) the role she must play in the home; that is, she must help unduly with household chores and caring for the retardate. However, in both these studies, the ratings are derived from either parents or teachers and do not involve the normal siblings directly.

Although Farber's studies are very significant to the development of the field of mental retardation there are some shortcomings to his work. First, it seems that the families sampled were not representative of families of the retarded in general; his families tended to be white, of higher education, higher income, higher social status than the source population and were predominantly Protestant (Farber, 1959:29-30). Second, the data on the normal siblings was derived mostly from interviews with the mothers and not from any direct assessment of the siblings themselves. Third, control groups were not used; therefore one cannot conclusively say that the problematic issues affecting these families might not also be found in similar families without a retarded member.

Parental guilt - Parental guilt may also have a direct effect on the normal children in the family. Siblings tend to imitate their parents' reactions (Ross, 1964:104). If the parents act guilty, the other children likely will too. Second, the normal sibling may become the scapegoat for parental reactions. Anger, frustration, and disappointment about the retarded child are negative feelings which parents often find intolerable in themselves, so they displace these feelings onto the normal children because it is more acceptable to them and makes them feel less guilty about their negative feelings (San Martino, 1974:172). The siblings then begin to feel responsible for the family's troubles. In order to handle their guilt, the normal siblings may develop defensive and adaptive behaviours, that are misappropriate and conflict producing (for example, acting out behaviour, withdrawal, regression to or imitation of the retardate's level of behaviour) (San Martino, 1974).

Communication with parents - The effectiveness and accuracy of parent/child communication is also affected by the presence of a retarded child in the home. Farber and Jenne state that adequacy of communication has an important influence on the socialization of the child. They have looked at the communication of parental satisfaction or dissatisfaction with the normal child's performance in family, school and community activities (Farber and Jenne, 1963a). They conclude that when the retarded child is at home normal boys tend to over-estimate their father's dissatisfaction while normal girls tend to under-estimate their mother's dissatisfaction with their behaviour (Farber and Jenne, 1963a:66). These findings are interpreted on the basis of the extensiveness of the role of the normal child in the home. As mentioned previously, girls have an expanded role in the home (caring for retardate, helping with household tasks) therefore have little time to participate in youth-sponsored activities. Boys on the other hand, avoid interaction in the home, and seek companionship outside, thus are greatly involved in youth-sponsored activities. Farber and Jenne make the statement that normal children perceive parents as being opposed to youth culture (gangs, fads, loafing groups, etc.) yet do not offer any proof or justification for this statement. Nevertheless, it is on the merit of this idea that they conclude that girls who do not partake in youth sponsored activities have the impression that they are conforming to parental expectations while boys have the impression that they are dissatisfying their parents (Farber and Jenne, 1963a:51-52). Parents are so involved with the retarded child that they are not able to effectively communicate to their normal children their satisfactions or dissatisfactions with their behaviour (Farber and Jenne, 1963a:50-52).

Parental interest - The parents of a mentally-retarded child, being overwhelmed and overburdened with the care and supervision of the retardate may demonstrate an attitude of indifference towards their normal children. McAllister, Butler and Tzuen-Jen Lei support this point of view when they suggest that there is a lessened likelihood of interaction between parents and (normal) children in families where there is a mentally-retarded child (McAllister, Butler and Tzuen-Jen Lei, 1973:94). Consequently, if the normal children feel that their parents are disinterested in them, or don't care about them, a negative self-concept may emerge.

In summary, research seems to indicate that siblings of the retarded, who receive little affection from their parents, who have poor or inadequate communication and interaction patterns with their parents, and who sense that their parents are indifferent towards them may be prone to the development of negative self-concepts.

Other - Other negative aspects of being the sibling (in terms of home life) of a retarded child have been identified including: (a) emotional neglect due to parental overconcern with the retarded child (Schild, 1971:437; Abramson, 1971:23) and this leads to jealousy, resentment towards their sibling; (b) the danger of becoming the target of excessively high parental aspirations in order to compensate for parental frustrations and disappointments about the retarded child (Farber, 1959:56-57; Schild, 1971:437); (c) normal siblings are often confused with regards to their role as a sibling-of-a-retarded--how much responsibility for the retardate must he or she take and what are their responsibilities in the event of the parents' death? (Schreiber and Feeley, 1965:223; Abramson, 1971:23). This list can be considerably extended; however, what is important to recognize is that having a retarded child in the family can be stressful and traumatic for the normal siblings.

Peer Interaction

Significance of Peer Interaction

The importance of the peer group in an adolescent's life cannot be underestimated. "Most psychological needs are satisfied by peers during adolescence; most recreation time is spent in the presence of peers; and most important events are related to the peer community" (Mitchell, 1975:145). Moreover, recent studies have indicated that peer group interaction, like parent-child interaction, has a very significant impact on the individual's self-concept.

Rosenberg has investigated the relationship between an adolescent's self-concept and his participation in both formal groups (such as teams, organizations, clubs, etc.) and informal groups (such as gangs, cliques and friendship groups). Although he does not determine a cause and effect relationship--that is, does a negative self-concept lead to withdrawal from social interaction or does non-involvement in social groups lead to a negative self-concept?--his results do show that those adolescents who are not active in peer group activities rate themselves more negatively on self-concept measures than do those adolescents who participate in group functions (Rosenberg, 1965:191-205).

For the adolescent, peer group association is a very important aspect of healthy personality development. The functions of the peer group are many but most important are that (1) it helps him develop independence from his family; (2) it gives him a social identity, status and sense of belongingness and (3) the group provides a "mirror" in which the adolescent can see how he appears to others (his self-concept or self-image) (Rogers, 1972:340-342).

It appears evident that adolescents who are in a position to develop positive self-concepts are those who are active participants in peer group functions, who have the acceptance of their peers and who are able to conform to the standards of their group.

Sibling-of-the-Retarded/Peer Interaction

Having a retarded sibling immediately sets the normal sibling up as "different" and puts him in a vulnerable position for taunting and teasing by his peers (Schild, 1971:437). This may explain why a great many siblings of the retarded never tell their friends about their retarded brother or sister (Schreiber and Feeley, 1965:223-4; Kaplan and Fox, 1968:506). An interesting revelation may by Caldwell and Guze, and reinforced by Schreiber and Feeley, is that adolescents will expose their sibling to their same-sex friends only if they had to, and are extremely reluctant to do so with friends of the opposite sex (Caldwell and Guze, 1962:855; Schreiber and Feeley, 1965:223). It is evident from this research that having a retarded sibling creates feelings of inferiority, shame and embarrassment for the normal siblings, particularly if peers find out.

The presence of a retarded child in the family creates problems for the normal sibling in terms of his peer group activities (Farber, 1959, 1960; Abramson, 1971; Kaplan and Fox, 1968; O'Neill, 1965). Many simply do not have the time or opportunity to take part in group organizations because of home responsibilities (Farber, 1959: 56; O'Neill, 1965:228). Others, rather than expose the fact that their family is different, choose to curtail extra-familial activities and thus avoid being put into the position of having to explain about their retarded brother or sister (McAllister, Butler and Lei, 1973:96-98; O'Neill, 1965:228; Schreiber and Feeley, 1965:223-233).

The sibling of a retarded child frequently holds himself back from opportunities for social interaction. O'Neill states that the mentally-retarded child in the family is often perceived by his (normal) sibling as a threat to the sibling's need for acceptance and esteem in the peer group. Consequently, siblings shy away from groups rather than risk the exposure of the "family problem" and possible non-acceptance by the group (O'Neill, 1965:228). In keeping with Rosenberg's statement, it would appear then that siblings of the retarded are a group who are susceptible to the development of negative self-concepts due to their lack of peer involvement.

Ann Gath has studied the degree of psychiatric disturbance in school-age siblings of mongoloid children. Twenty per cent of her sample of siblings are rated as "deviant" by parents and teachers. Within this "deviant" group the most common problems reported--in over seventy-five per cent of the cases--are unpopularity and difficulty with peer relationships. Gath's explanation for this finding is that the normal siblings (particularly girls) have to "help unduly" in the home, leaving little time for activities with their peers (Gath, 1974:195). If, as Stryker (1972), Mead (1934) and others have stated, an individual's self-concept is largely determined by his perception of what others think of him, it is likely that these siblings will begin to see themselves as "deviant" and unpopular, just as their parents and teachers do.

Sibling Interaction

Significance of Sibling Interaction

Sibling interaction is a relatively neglected aspect in family life research; however, it is a significant factor in the personality development of the individual . . .

> . . . Interaction with siblings functions as one avenue for the socialization of children. It helps bring them into social reality, gives them experience in resolving interpersonal conflicts, introduces them to the rights of others, and provides a "school of mirrors". On occasion, siblings may act as substitutes for parents. They may turn to each other when sufficient attention or understanding is not shown by an indifferent, harried, or uncomprehending parent. Sometimes siblings are more effective teachers than adults, particularly if youthful skills are involved. Siblings may often understand childhood problems and new situations better, in some ways, than do the parents they share. They are associates that can contribute importantly to emotional security; and ordinarily, it is pleasant and helpful for children to have other children as companions. Siblings may serve as role models for one another; particularly may the younger observe the older siblings of the same sex. They can serve as challengers and stimulators. Finally, in the creation of a "sense of family", a psychological unity of members who perform the essential and peripheral tasks of habitation together, each person develops his niche in the total structure . . . (Irish, 1964:296)

Davis and Northway observed five pairs of siblings during a period of five years. Their research supports their contentions that each child uses his sibling as a means of his own self definition and by observing their differences each sibling can strengthen his own individuality (Davis and Northway, 1957:10-13).

Normal Sibling/Retarded Sibling Interaction

The extensive research by Bernard Farber has revealed two interesting insights into the significance of sibling interaction when one of the siblings is retarded. First, he found that normal girls who interacted frequently with their retarded sibling were rated negatively on such traits as stubbornness, irritability, bossiness, self-centeredness, etc. by their mothers. In keeping with the contention that an individual sees himself as others see him, these siblings will possibly rate themselves negatively as well.

Guilt - One of the most frequent issues brought up as to why normal siblings have adverse behaviour is their guilt. They may feel guilty that in some way they caused their sibling's retardation, or guilty about their glad feelings that they are normal while their sibling is not (San Martino, 1974:169-170; Schild, 1971:437). More often the siblings feel guilty about their negative feelings towards their retarded brother or sister such as resentment, shame, disgust (Abramson, 1971:23).

Identity - Several researchers have pointed out that identification with the retarded sibling can present serious problems for the normal child (Grossman, 1972; Kaplan and Fox, 1968; San Martino, 1974). Kaplan and Fox suggest that one of the main tasks of siblings of defective children is to avoid identifying with them. In their study group of adolescent siblings it was noted that the normal teenagers went to great trouble to maximize the difference between themselves and their retarded sibling (Kaplan and Fox, 1968:554). Identification with the retardate can lead to such problems as doubting or questioning their own mental integrity (San Martino, 1974:171). Some feel that when they grow up and marry they may produce retarded offspring (Schreiber and Feeley, 1965:224). Normal siblings are often jealous of the extra attention the retarded one gets so will copy his or her behaviour in order to attract attention to themselves (San Martino, 1974:174; Schild, 1971:437; Abramson, 1971:23). Grossman cites the case study of a young girl who overidentified with her retarded brother to the extent that she believed she was retarded too--this girl wound up psychotic and permanently psychologically impaired (Grossman, 1972:Chapter 2).

Positive Effects of Being "Sibling-of-a-Retarded"

Despite the abundance of literature explicating the negative aspects of being sibling-of-a-retarded, some recent studies have shown that there are no adverse or in some cases, even positive effects. Grailiker, Fishler and Koch in direct interviews with twenty-one teenage siblings of retarded children conclude that, on the whole, these teenagers lead a normal life with adequate social outlets and positive relationships with their peers. Their relationships within the home structure are good and there is acceptance of the retarded child with adequate understanding of the diagnosis (Grailiker, Fishler and Koch, 1962:838-843). However, the families from which this sample is drawn are families involved in a long term assistance programme (involving support and guidance from pediatricians, psychologists, public health nurses and social workers). That these teenagers seem well-adjusted in terms of their school, social and family life may be due to the fact that early parental guidance has helped the the family to maintain its equilibrium (Grailiker, Fishler and Koch, 1962:843).

Schipper (1959) reports that the siblings of forty-three mongoloids seen at the clinic are well-adjusted, and that where problems exist, most of them appear to be caused by other factors (e.g. financial) (Schipper, 1959:132-144). However her interpretations are very subjective and based on her own impressions of the siblings.

A major study by Caldwell and Guze (1960) compares the normal siblings of institutionalized and non-institutionalized retarded children. After administering a number of scales (Children's Manifest Anxiety Scale, Stanford-Binet Vocabulary Test, and a structured clinical interview) the authors conclude that a retarded sibling in the home has no detrimental effects on the normal childred (Caldwell and Guze, 1960:845-861). Although they attempted to set up controls by matching the two groups from the viewpoint of socio-economic factors and family history and directly assessed the siblings themselves, the sample is too small (only sixteen in each group) to make generalizations.

Two informal discussion groups with teenage siblings of the retarded illustrate the fact that if the total adjustment of the family unit is good, then the normal children are not adversely affected by the presence of a retarded member. The young person with positive family relationships and who has clear perception of the the realities of mental retardation, is often capable of enduring the emotional hurt and anxiety of having a retarded sibling without severe disruption of his family and social life (Schreiber and Feeley, 1965: Abramson, 1971). Parental acceptance and coping ability is often reflected in the normal children; if parents have adjusted to the crisis, the normal siblings likely will adjust also (Caldwell and Guze, 1960:860; Gath, 1972:150).

On an even more positive note, it has been documented that some children may even benefit from the experience of growing up with a retarded sibling (Farber, 1963; Tudor, 1959; Grossman, 1972). Farber examines the "life goals" of eighty-three boys and girls between the ages of ten and sixteen, who lived with a retarded sibling. He finds that both boys and girls who have sustained interaction with their retarded siblings rank devotion to a worthwhile cause and making a contribution to mankind as high (Farber and Jenne, 1963a:96-98). Grossman in her study of college age siblings has found that about as many of her sample seem to have benefited as are harmed. About half of the students she interviewed seem more tolerant, more compassionate, more aware of prejudice and its consequences, sometimes more focused occupationally than comparable students who have no retarded sibling (Grossman, 1972:176). Tudor's contention, in keeping with Grossman's, is that retaining the retarded child in the home provides excellent character training for the siblings, instilling them with social consciousness and responsibility at an early age (Tudor, 1959:196-198).

Summary

The literature reviewed presents conflicting evidence concerning the impact a retarded child may have on his normal siblings. However, two important facts of major importance to the following research have been revealed. First, it has been established that the presence of a retarded child in the family may undermine the normal sibling's interaction with significant others, specifically parents and peers. Second, an individual's self-concept develops to a great extent as a result of his interaction with others. There is a need for investigation to determine if in fact a mentally-retarded child in the family interferes with his normal sibling's interaction with significant others, and if that interference has any impact on the sibling's self-concept. As well, there is a need to determine if interaction between the normal sibling and the retardate has any effect on the normal sibling's self-concept.

Specific Objectives of the Study

It is the intent of this thesis, using a symbolic interactionist approach to:

(1) ascertain if and how the presence of a mentally-retarded child in the family affects the normal adolescent sibling's interaction with significant others;

(2) determine if the self-concepts of the adolescent siblings of retarded children differ significantly from the self-concepts of a comparable group of adolescents who have no retarded siblings;

(3) identify areas of interaction that are stressful or problematic for adolescent siblings-of-a-retarded.

CHAPTER 3

SYMBOLIC INTERACTION: A CONCEPTUAL FRAMEWORK

The conceptual framework underlying this thesis is the symbolic interactionist framework. It has been chosen because it deals with the individual as part of a system of interacting personalities and has as its major concerns two outcomes of that interaction: socialization and personality development. It is the latter of these two outcomes to which this research is directed; specifically that aspect of the personality known as the self-concept.

The present chapter offers a brief summary of the basic principles of symbolic interaction and its relation to self-concept development. The application of this approach to the study of siblings of the retarded is also given. Some of the factors considered to have a direct impact on how the normal sibling is affected by his retarded brother or sister, namely the normal sibling's age, sex and socio-economic status, are included. Finally the important terms used in the context of this study are defined.

Principles of Symbolic Interaction

Just as an individual develops conceptions about the physical and social world in which he lives, so does he develop conceptions about himself as a person. The early contributions of self-theorists to the understanding of self and self-concept lay in their emphasis upon social interaction in developing the individual's self-concept (James, 1892; Cooley, 1902; G. H. Mead, 1934; Sullivan, 1953). Their theories formulate the basis of what has come to be called symbolic interaction theory. In recent years, this theory has been used to study such aspects of family life as marital relationships (Mangus, 1957; Burr, 1971) and socialization and personality development of the child (Dager, 1967).

The symbolic interaction framework begins by looking at the social act. Two humans interact because one has a need or an impulse which can only be satisfied by another person. Thus every social act takes into account at least two interacting human beings. Moreover, human beings interact in and respond to a categorized world. That is, every object in our society is categorized or given a name that signifies how it is to be treated and signifies what kind of behaviour is expected from it. A socially recognized category or persons is called a status or position. The behavioural expectations attached to a position or status define its role (Stryker, 1967:21). The individual defines himself in terms of socially recognized categories and their corresponding roles. He evaluates himself in terms of the responses others make to him as he performs (or fails to perform his role(s). One's self-concept then is developed and learned in interaction with significant others . . . "Man is born a-social. He becomes a social being through the acquisition of a self in the context of interaction with others; one's self-concept is dependent upon such interaction" (Stryker, 1964:134-135).[2]

Essentially this framework is stating, with regards to self-concept development, that one's self-concept evolves from interaction with significant others. When this interaction is interfered with or undermined by some force, one of the major avenues leading to the development of a healthy self-concept may be thwarted. The problems that the sibling of a retarded child may face in terms of his interaction with significant others and his self-concept development can be explained effectively by the symbolic interactionist frame of reference.

Theoretical Applications for the Study of Self-Concepts of Siblings of the Retarded

Given a differentiated world, others with whom the sibling of a retarded interacts may have varying and even incompatible expectations for his behaviour. To some he must play the role of son or daughter, to others he must play the role of brother or sister, and to others he is expected to play the role of members of a peer group. Ideally the way the sibling categorizes himself and the role expectations he gives himself are harmonious with the category and roles others assign to him. However, the presence of a retarded child in the family may cause incongruities in the normal sibling's position and role expectations as he interacts with many people in his life.

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[2] The Symbolic Interactionist framework is also equipped to deal with such aspects of family functioning as communication processes, stress reactions, problem solving, and perception. However, in this study the focus in on interaction and the consequent development of self-concept only.

The sibling of a retarded may be categorized by his friends at school or in his neighbourhood as a member of this peer group or gang. This likely will lead to certain expected behaviours (or a role) that conforms to that of the group. For instance, the sibling may be expected to take part in most of the group's activities (sports, loafing, etc.) and to spend more time with the group than at home (Hurlock, 1967:667). However, because of his unique status of being the sibling of a retarded child, the sibling is not able to carry out his role of peer group member. Instead he may have obligations to help out unduly at home, babysit his retarded sibling, etc. and consequently have little time for peer group interaction.

Or on the other hand, the normal sibling may be aware of the expectations others his age have for him but may voluntarily withdraw from carrying them out. This may be due to the fact that he does not want to expose or explain that his family is different. Whatever the underlying reason, whether it be obligations at home or shame about the family's problem, the normal sibling may be prevented from carrying out his role as a member of a peer group.

The influences of brothers and/or sisters upon each other are considered significant factors for personality development, social control, achievement and motivation (Irish, 1964:279). The significance attributed to sibling relations has been explicated by several researchers in the past twenty years (Cumming and Schneider, 1961:498-507; Toman, 1959:199; Bossard and Boll, 1960:Chapter 5; Koch, 1956:393-426; Brim, 1958:1-6). All of these researchers stress the importance of sibling interaction as an avenue for the socialization of children. It helps bring them (siblings) into social reality, gives them experience in resolving interpersonal conflicts, introduces them into the rights of others and provides a "school of mirrors". Siblings may serve as role models for one another, as challengers and stimulators. They are associates that can contribute importantly to emotional security, a sense of family, and affectional bonds (Irish, 1964:296). When one of the siblings is mentally retarded, accomplishment of these things may be greatly impaired.

Even though the retarded child is not chosen by the normal sibling as a significant other in his life, the interaction that does take place may have an effect on the normal sibling's self-concept. Reiterating what Farber has said, (see review of literature), normal siblings, because of their undue responsibilities for helping out with the retardate at home, may show more negative and neurotic traits than siblings with infrequent interaction with their retarded sibling (Farber, 1960). Identification with the retardate may also manifest itself in the normal sibling to the extent that the normal one begins to feel that something is wrong with himself as well (San Martino, 1974:169). As well, interaction with the retarded child may stir up guilt in the normal siblings: guilt that they are ashamed of or resent their handicapped sibling, or guilt about their glad feelings that it is their siblings and not themselves who are afflicted.

The interaction between the normal siblings and his parents may also be affected by the presence of a retarded child in the home. As the review of literature describes in detail, the parents may be so overwhelmed by their responsibilities to the retardate, the normal children may be neglected. Or the demands the parents put on the normal children to help out at home may be a source of conflict. This is especially true for girl siblings who are the usual ones on whom domestic responsibilities are put (Farber 1963:51).

Other Factors Affecting Self-Concept

The previous two sections have established the importance of interaction with significant others in the development of one's self-concept. There are however, many antecedent conditions which may also affect the cultivation of a positive or negative self-concept. Intelligence (Gladwin, 1967), physical attractiveness (Adelson, 1966), religion (Bachman, 1970), experiences of success or failure and consequent feelings of competence or incompetence (Smith, 1968:302) are only a few of such antecedent conditions. Given the limited sample size and the difficulty in locating and recruiting subjects for the study it was not feasible to take all these conditions into account.

Age, sex and socio-economic status are three factors which appear to have an impact on one's self-concept. Not only do they influence the self-concept of a person in the general population, but also they may have a direct bearing on how the normal sibling reacts to or is affected by the retardate in the family (and consequently have impact on self-concept). These three variables (age, sex and socio-economic status) will be statistically controlled for in the study.

Age - Despite the popular conceptions of adolescence as a time of "storm and stress" and of identity crisis, there appears to be a general pattern of increasingly positive self-concepts from early to late adolescence. The increasing body size and physical and intellectual capabilities can be related to more positive self-concepts (Long, Ziller and Henderson, 1967:205; Engels, 1959; Rosenberg, 1972).

With respect to the sibling of a retarded child, the older the normal sibling the greater the likelihood that he/she has come to terms with the retardation and has accepted it. Older siblings have less chance of identifying with the retardate since they have a greater understanding of what mental retardation is all about. Moreover, older normal siblings find it easier to assume somewhat of a parental role towards their retarded sibling, a role which may give them a feeling of satisfaction, competence and mastery over the situation (Grossman, 1972:190).

Sex - Distinct modes of self-concept development have been identified for males and females. The trend appears to be that young female adolescents have relatively higher self-concept scores than young male adolescents, but towards the end of adolescence this trend reverses. Girls tend to be more advanced physically, intellectually and in their social development than boys early in adolescence (Gordon, 1962:271-273). This may lead to more positive self-appraisals on the part of females. The reversal occurs when boys begin to mature and surpass girls in height and other physical characteristics.

In the family with a mentally-retarded child, the normal siblings appear to be more embarrassed if the retardate is of the same sex. This is possibly because of the greater sense of identification with a same-sex sibling (Grossman, 1972:105). In our society female siblings are the likely ones on whom to put the burden of domestic responsibilities and caring for the retardate (Farber, 1963:51) thus interfering with their chances of peer interaction. Male siblings on the other hand, tend to avoid interaction in the home and seek it with their peers. This occurs because the normal brother's role as far as his retarded sibling is concerned, is relatively minimal in comparison to his sister's (Farber, 1963:51).

Socio-economic status - Differences in self-concepts have been noted between adolescents in different socio-economic statuses; the higher the status, the more positive the self-concept (Wylie, 1967:134). It should be noted that differences in self-concept are probably due more to different socialization and child-rearing patterns within various status groups rather than to status per se (Rosenberg, 1965; Coopersmith, 1967; Gecas, 1971). For example, upper class parents tend to be more supportive and rewarding for personal achievement and individualism. Lower class parents tend to be more restrictive, critical and punitive (Eshelman, 1971:272-273).

The way the family copes with mental retardation also varies from class to class. The upper class family usually feels the pangs of personal tragedy in which the aspirations for a successful family are thwarted. However, because of adequate financial resources, they are able (usually) to purchase the support services they need to handle the problems created by the retarded child. Their life style remains fairly stable. Lower class families on the other hand are concerned with the day-to-day problems of providing and caring for the retardate. Due to limited resources, all family members must chip in to handle the problems created by the retarded individual. Consequently, the normal siblings in such families may be more directly affected by the retardation (Farber, 1968:154).

Definition of Terms

Adolescent - The term adolescent refers to a socially recognized category of persons. It can be defined in many ways depending on the point of view from which it is being approached (sociologically, biologically or psychologically). No matter what perspective one is taking, for purposes of this research adolescence is seen simply as that stage in the life of an individual when the status of child has weakened but the status of adult has not been fully attained. The adolescents who participated in this research represented both sexes, the ages twelve to twenty-one years and three socio-economic status groups. (Chapter 5 gives greater details about the demographic characteristics of these adolescents.) All had either a mentally retarded or a younger normal sibling and all were living at home with their parents and siblings.

Self-concept - One's self-concept is his assessment of himself as a person. A person with a positive self-concept is one who respects himself and considers himself worthy and acceptable. A negative self-concept on the other hand implies self-dissatisfaction, self-contempt and self-disparagement.

Mentally-retarded sibling - The retarded siblings referred to in this research are trainably retarded individuals (that is, an IQ between 25 and 50). All attend a special school for retarded children in the City of Edmonton, and live at home with their parents and normal adolescent siblings.

CHAPTER 4

METHODOLOGY

Introduction

The purpose of this study was to explore two major areas of inquiry. First, were there differences, and if so, where, in the interactions (with significant others) between adolescent siblings of the retarded and adolescent siblings of normal children? Second, did these differences give rise to differences in the self-concepts between the two groups?

In this chapter the experimental design is described. Information regarding the population and sample, sampling procedures, the test instruments used and the procedures used in the administration and scoring of the tests are included. The treatment of the data by statistical methods is discussed as well.

The Sample

Experimental Group

The study sample consisted of twenty-five adolescent siblings of retarded children who were living at home with their retarded sibling and their parents. A sample population was recruited by sending letters home with two-hundred retarded children who were attending classes at a school for mentally-retarded children in the City of Edmonton. If there was an adolescent sibling in the family who was willing to participate, and if that sibling was given parental permission to take part in the study, a response letter giving the name, address and phone number of the family was mailed back to the researcher. (Copies of the initial letter and the response letter are included in the Appendices.) This method of selecting the experimental group has one main limitation. It cannot be determined how many adolescents were eligible to take part in the study, nor how many either refused or were not given parental permission to participate.

By systematic random selection, that is, choosing every second name, a sample of twenty-five was chosen from the population of fifty-two who sent back an affirmative reply.

Control Group

Fifty adolescent siblings of normal children were asked if they would participate in the research project. This group was drawn from three sources: (1) by asking a first year university class to give the names of their adolescent brothers and sisters; (2) by asking for volunteers from a community youth group; and (3) by obtaining names from personal acquaintances who knew of or had teenagers living near them. By using random selection twenty-five adolescents were chosen from the larger group on the basis that they as a group were similar to the adolescents of the retarded in age, sex and family socio-economic status. This was accomplished by using random table numbers; when a name was selected that was not comparable to anyone in the experimental group, it was dropped and the next number chosen. This procedure was carried out until a matched control sample of twenty-five was selected.

Two other criteria had to be met by all those in the control group. Each volunteer had to be living at home with his or her siblings and parents, and each had to have a least one younger sibling.

Sample Limitations

Of vital importance to this research was the question of the representative quality of the volunteer siblings of the retarded. That is, were those siblings who volunteered different from those who did not? Rosenthal and Rosnow in their summary of articles discussing the effects of anxiety-level and psychopathology on volunteering, reported that non-volunteers, particularly for interview studies that might be anxiety arousing tended to be less well-adjusted than the volunteers (Rosenthal and Rosnow, 1969). These findings support the inference that those adolescent siblings who did volunteer were probably better adjusted and came from families less traumatized by the retardation than the non-volunteers. In other words, the sample of adolescents in this study were probably less megatively affected by the experience of growing up with a retarded sibling than the total population of siblings of the retarded. This sample bias could reduce the probability of obtaining statistically significant differences between self-concepts of siblings of the retarded and self-concepts of the control group. To the extent that this was the case, any negative psychological effects (in this research the negative effects will be shown by a low self-concept) that were found in this data would likely have been greater with a larger and more complete sample.

Comparability of the Experimental and Control Groups on Socio-Economic Status

The adolescents in the control group were selected on the basis that they as a group matched quite closely to the experimental group in socio-economic status (as well as age and sex). The instrument used to facilitate this matching was Hollingshead's Occupational Status Scale. This scale is part of his Two Factor Index of Social Position although it is sometimes used by itself as an indicator of respondents' class or social position (Bonjean, 1967:442). Ideally, the occupation, education level and income of the head of the household should have been used to determine the socio-economic position of the family. However, fathers' education and income were not asked for by the researcher because it was felt that this information might be unknown by some of the adolescents in the sample and the avoidance of parental interference was desired in the collection of the data. Therefore it was felt best to eliminate questions where there was a possibility of the adolescents asking for parental advice or assistance and possibly setting the mood for further parental involvement with other parts of the questionnaire. Nevertheless, "a man's position in the occupational structure is the most important single determinant of the family's status . . . the most important determiner of the life style of his family--with whom they will associate, what their aspirations for their children will be, what they will do for recreation, where they will live . . ." (Udry, 1966:387).

Hollingshead's Scale ranked occupations in seven categories going from highest to lowest status. In order to simplify coding, the seven categories were regrouped to make only 3 major categories. Categories 1 and 2 were combined into Group I SES, categories 3, 4 and 5 were combined into Group II SES and categories 6 and 7 became Group III SES. The rationale for this procedure was simply that categories 1 and 2 appeared to consist of wealthy, highly professional persons, categories 3, 4 and 5 consisted of persons who had at least some form of higher education or were skilled workers and categories 6 and 7 consisted of persons who were semi- or unskilled. The reader is asked to refer to Hollingshead's Scale (Appendix E) for a detailed description of the various occupations that are included in each of the seven categories listed below:

GROUP I
(1) High executives of large concerns, proprietors and major professionals.
(2) Business managers, proprietors of medium-sized business and lesser professionals.

Group II
(3) Administrative personnel, owners of small businesses and minor professionals.
(4) Clerical and sales workers, technicians.
(5) Skilled manual employees.

Group III
(6) Machine operators and semi-skilled employees.
(7) Unskilled employees.

Collection of Data

Once the names of the twenty-five siblings of the retarded were selected each sibling was contacted by phone and a time arranged when the researcher could go to their home to administer the questionnaire. The decision to deliver the questionnaire personally and wait in the home while it was completed (in lieu of mailing) was arrived at for the following reasons:

(a) the possibility of parental interference was eliminated;

(b) there was the guarantee that the questionnaire would be completed and returned to the researcher;

(c) it gave the researcher a chance to meet the normal siblings and through discussions with them about their retarded sibling possibly pick out some concerns or problems that might not be made evident by the questionnaire responses alone. Although these insights were not formally analyzed, they did give the researcher an idea where further research might be fruitful. Also, it helped clarify and make more meaningful some of the responses the adolescents made on the questionnaire. For example, one response to the question asking why the normal sibling is embarrassed by his retarded brother was--"because he is a little monkey sometimes". However, it became evident through watching the sibling react to his brother's behaviour that this sibling was quite annoyed and frustrated with the retarded child.

Virtually the same procedure was followed for the collection of data from the control group.

Research Instruments

The questionnaire devised by the researcher consists of three parts. Part A was concerned with demographic data only. Part

B was designed to give the researcher information regarding the interaction between the adolescent and his or her significant others as well as with the retarded sibling. Part C was a self-concept scale.

Part B

Part B was an adaptation of the questionnaire used by F. K. Grossman in her study of college age siblings of the retarded. This section was developed primarily to gather information concerning the interaction between the adolescent and his parents, peers and siblings.

There was a total of 47 questions; nine of these were open-ended. The other questions had a choice of three or four responses from which the respondent was required to indicate by a check mark the response which he felt best suited him.

Part B of the questionnaire for the control group was modified in two ways. First, those questions that related directly to a retarded sibling were eliminated (e.g. Has your family ever received professional assistance in helping you cope with the problems of a mentally-retarded child in the family? Do you talk about mental retardation or about your retarded brother or sister with your parents?) Second, some questions were rephrased to refer to a younger sibling rather than a retarded sibling (e.g. How much time are you responsible for your retarded brother or sister? became--How much time are you responsible for your younger brother or sister?) The control group answered twenty-eight questions in Part B. Copies of Part B for the experimental and control groups are included in the Appendices.

Validity - The only measure suitable for judging the validity of Part B was content. The literature was surveyed to gather information about the normal sibling's interaction with parents, peers and his (retarded) sibling. Based on the findings in the literature, objectives were formulated and were used to direct the construction of Part B. (Table 1 is a list of those objectives and the questionnaire items designed to meet them.)

Reliability - No formal measures were taken to establish reliability of response to the items in Part B. However, care was taken to make each item as easily understood as possible. By reducing ambiguity of wording, the likelihood of respondents interpreting items differently from one time to another would be as low as possible. The total questionnaire was pre-tested on four adolescent siblings of the retarded. On the basis of the pre-test minor changes were made in the questionnaire to clarify wording of items and instructions. Also, the last question (#47) was added.

Part C

Part C of the questionnaire was the Lipsitt Self-Concept Scale. This self-concept scale contained the following twenty-two trait descriptive adjectives: friendly, happy, kind, brave, honest, likeable, trusted, good, proud, lazy, loyal, co-operative, cheerful, thoughtful, popular, courteous, jealous, obedient, polite, bashful, clean, helpful. Each of these adjectives was prefixed by the phrase "I am . . ." and was followed by a five point rating scale. Nineteen were considered as positive or socially desirable attributes while three (underlined above) were considered negative. The rating cate-

TABLE 1

Classification of Questionnaire Items According to Study Objectives
(Part B of Questionnaire)

Objective		Questions
Adolescent-Retarded Sibling Interaction		
(a)	to obtain information on normal sibling's identification with the retardate	1, 2, 3
(b)	to assess the adolescent's feelings about the retarded sibling	4, 5, 6, 7
(c)	to determine the amount of time spent with the retardate and adolescent's feelings about spending time with him	8, 9, 10
(d)	to identify adolescent's feelings about responsibility for the retardate	11, 12, 13, 14, 15
Parent-Adolescent Interaction		
(e)	to assess if normal sibling feels neglected by parents	16, 17, 18
(f)	communication with parents about Mental Retardation	19, 20
(g)	to determine how adolescent feels about parental expectations re housework, school work	21, 22, 23, 24, 25
(h)	to determine adolescent's perception of parents' attitude towards the retardate	26, 27, 28
(i)	to determine if normal sibling feels his family is "different"	29, 30
Adolescent-Peer Interaction		
(j)	to determine adolescent's feelings about his social life	31, 32, 33, 34
(k)	to assess how the normal sibling handles peer reactions to his mentally retarded sibling	35, 36, 37, 38, 39, 40
(l)	to determine if retarded sibling interferes with group activities	41, 42, 43
General Information About the Retardate		44, 45, 46, 47

gories, scored from 1 to 5 were entitled, not at all (1), not very often (2), some of the time (3), most of the time (4) and all of the time (5). In the case of the three negative adjectives the scoring was reversed. A score on the self-concept scale was obtained for each respondent by summing the ratings ascribed to himself on each item. Lower scores reflect a degree of self-disparagement or a low self-concept.

Lipsitt established reliability on his scale by administering the test twice at a two week interval on a group of 300 Senior Public School students in Iowa in 1958. Test-retest reliability coefficients were significant beyond the .001 level.

There was no formal measure of validity of this scale. However, Lipsitt did attempt to validate his scale by correlating it to the Children's Manifest Anxiety Scale (a reliable and valid instrument). His rationale for doing this was the common assumption that in the conflicted or anxious person there exists an attitude of self-disparagement (or low self-concept); high scores on the CMAS should correlate with low scores on the Self-Concept Scale (Lipsitt, 1958: 464). Due to the fact that significant correlations between the two tests were found at the .05 level and the .01 level, validity of the Lipsitt Self-Concept Scale was assumed.

Of the many self-concept measures that could have been used in this research, the Lipsitt Self-Concept Scale was chosen primarily because of its suitability to a sample with an age range of eight years (12-21 years) and because of its ease in administering and scoring.

Part C was identical for both the experimental and control groups. A copy of Part C is included in the Appendices.

Treatment of the Data

All questions, including the open-ended questions were coded. Open-ended questions were coded by first listing all the responses that were given for a particular question. Second, categories were then created so that like responses could be grouped into one category. The information obtained from each questionnaire was transferred to computer data sheets, keypunched onto computer cards and processed by computer.

The first step in the treatment of the data was an analysis of the demographic characteristics of the sample (Part A). Specifically, the age, sex and socio-economic status of the respondents in both the experimental and control groups were inspected.

The second part of the data analysis consisted of analyzing the information obtained from Part B of the questionnaire (dealing with the normal adolescent's interaction patterns with parents, peers and sibling). Frequency counts and percentage distributions were obtained to indicate the distribution responses of the total sample to each item in Part B. Chi-squares were then calculated to determine if the responses given by adolescent siblings of the retarded were significantly different (at the .05 level) from the responses of adolescent siblings of normal children. The chi-square test was chosen because it is a test of significance which makes no quantitative demands upon the data and so can be used with all types of data (nominal and ordinal). Chi-square was used to determine whether or not two variables were independent of each other. That is, were the adolescents who had a mentally retarded sibling and adolescents who had normal siblings similar in

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their interaction patterns, or did the presence of a mentally retarded child (in the family) create differences in interaction patterns between the two groups? Age, sex and socio-economic status were controlled for when calculating these chi-squares. This part of the analysis was designed to identify differences in interaction patterns between the two groups that possibly could be associated with differences in self-concepts.

The third and final step in the data analysis was concerned with the results from Part C (the Lipsitt Self-Concept Scale). The self-concept score for each individual was obtained by summing all the scores on the twenty-two item check list. A mean self-concept score was calculated for the experimental and for the control group. Also, mean self-concept scores were calculated for only females and only males, for each of the three age categories and for each of the three socio-economic categories in both groups. An analysis of variance (ANOVA) of composite scores was the statistical test used to determine whether the difference in self-concept between the experimental and control groups was statistically significant at the .05 level of significance. (Again, age, sex and socio-economic status were controlled for.)

The analysis of variance technique was designed to test the premise that several groups being compared simultaneously actually do not differ. It allowed the researcher to test the variation within the groups as well as the variation between the groups. That is, with only one statistical test, the researcher was able to determine if there were differences within each of the two groups of siblings (differences within the three age categories, the three social classes and the two sexes) as well as differences between the experimental and control groups.

The following statement explains the rationale for choosing this particular test:

> If the analysis of variance indicates no differences, then the researcher has tested the hypothesis and has to do no further analysis. Even if he had additional hypotheses about specific comparisons, testing them has become invalid if the non-significant analysis of variance indicates no differences. However, if the analysis of variance indicates that there are differences, it permits the testing of additional hypothesis about specific comparisons. These additional hypotheses, however, need to be tested by appropriate tests of significance i.e. a test of specific comparisons such as the t-test. (Fox, 1970:152)

However, results of this method of analysis should be viewed with caution because of the considerable variation within each sample that is not controlled for by this method. For example, the siblings of the retarded showed differences in religious orientation of the family, sibling position, size of the family, etc. Such factors can greatly influence the experience of having a retarded sibling and consequently might affect self-concept scores. Ideally, in research of this nature major independent variables would be controlled for; however, with such a small sample it was not feasible to do this.

The Null Hypotheses set for this part of the data analysis were as follows:

Hypothesis One: There is no statistically significant difference between the mean self-concept score (as measured by the Lipsitt Self-Concept Scale) of a group of adolescent siblings of retarded children and the mean self-concept score of a comparable group of adolescent siblings of normal children.

Hypothesis Two: There is no statistically significant difference between the mean self-concept scores of the two groups when controlling for sex of the respondents.

Hypothesis Three: There is no statistically significant difference in the mean self-concept of the experimental and control groups when controlling for age of the respondents.

Hypothesis Four: There is no statistically significant difference between the mean self-concept scores of the experimental and control groups when controlling for socio-economic status of the respondents.

Finally, the analysis of data concluded with a statement indicating whether a relationship between interaction patterns and self-concept scores was found.

CHAPTER 5

ANALYSIS OF DATA

The chapter begins with a description of the experimental and control groups used in the study. Differences in interaction patterns (Part B of questionnaire) as determined by the chi-square technique are then presented. (Results from questions answered only by the experimental group are included in this section as well.) Each of the questions in Part B is further analyzed (again by chi-square) while controlling for the age, sex and socio-economic status of the respondents. Finally, statistical analyses (analysis of variance) of the scores on the Lipsitt Self-Concept Scale to determine if there are differences in self-concepts between the two groups are given. Discussion of the results is presented in the next chapter.

Sample Background

Of the two hundred letters sent home with the retarded children attending a school for the mentally retarded, fifty-six were returned to the researcher. These fifty-six letters indicated that there was an adolescent sibling in the family who had parental permission and was willing to take part in the study. This represented a return rate of only 28%. However, it must be kept in mind that many of the families who received the original letter might not have had an adolescent at all. Also, it cannot be determined, how many adolescents did not wish, or were not allowed, to participate in the project.

Four adolescents from the fifty-six volunteers were eliminated because the retarded sibling was adopted or was a foster child or the adolescent was no longer living at home. Only true brothers and sisters were considered in this study. Twenty-five adolescent siblings of the retarded were selected by random from the remaining group of fifty-two. The twenty-five adolescents who made up the control group were matched as closely as possible on age, sex and socio-economic status of the family. Included in the Appendix is a table illustrating the comparability of these two groups. (Appendix D.)

Tables 2, 3 and 4 present a breakdown of the experimental and control groups on the variables age, sex and socio-economic status.

TABLE 2

Percentage and Frequency Distribution of Sample by Age in Years

		Experimental	Control	
	12 - 15 years	60% (15)	56% (14)	
Age	16 - 18 years	16% (4)	28% (7)	
	19 - 21 years	24% (6)	16% (4)	
		100% (25)	100% (25)	N = 25

TABLE 3

Percentage and Frequency Distribution of Sample by Sex

		Experimental	Control	
Sex	Males	44% (11)	44% (11)	
	Females	56% (14)	56% (14)	
		100% (25	100% (25)	N = 25

TABLE 4

Percentage and Frequency Distribution of Sample by Socio-Economic Status

		Experimental	Control	
SES	Group I	16% (4)	24% (6)	
	Group II	80% (20)	72% (18)	
	Group III	4% (1)	4% (1)	
		100% (25)	100% (25)	N = 25

Analysis of Part B of Questionnaire (Interaction Patterns)

The frequency of responses to each question in Part B was calculated for both groups. Then a chi-square test was computed to determine if a significant relationship in these responses existed between the experimental and control groups on each question. The three areas of interaction under examination are: (a) interaction with sibling (for the experimental group is interaction with the retarded sibling; for the control group it is interaction with a younger sibling), (b) interaction with parents, and (c) interaction with peers. Table 1 (Chapter 4, page 39) shows the breakdown of each of these three areas of inquiry into more specific questions. As previously mentioned, the findings from the questions answered only by the experimental group are also presented.

Interaction with Sibling

The following table summarizes the statistical results of responses to questions dealing with interaction with the sibling (either retarded or younger). A more detailed analysis of the findings follows.

Identification with sibling - Questions one to three were designed to obtain information about the adolescents' identification with their retarded or younger sibling. As seen in the following table there were no significant differences between the experimental and control groups in the area of perceived similarities (i.e., does the adolescent see likenesses between himself and his sibling). Sixty-eight per cent (68%) of the siblings of the retarded (hereafter referred to as Sib R) and 88% of siblings of normal children (hereafter referred to as Sib N) admitted to a few or many similarities. The Sib R group listed similarities in emotions (e.g. loving parents) and feelings and a preference for similar activities, especially swimming and watching certain television programmes. The Sib N group also listed emotions, feelings, activities but included similarities in physical appearance. Although it was not statistically significant, 32% of Sib R reported that they were in no way like their retarded sibling while only 12% of Sib N saw no similarities between themselves and their younger siblings.

Identification with the retardate to the extent that a Sib R

TABLE 5

Summary of Results from Part B of Questionnaire: Questions 1 - 15
(Interaction with Sibling)

* answered only by Sib R + significant difference in response

Question	Item Description	Prob.	
1.	Perceived similarities between respondent and sibling.	.2271	-
2.	Manner of perceived similarities.	.4486	-
3. *	Worry about having retarded child of their own?	--	-
4.	Feelings towards sibling.	.4699	-
5.	Wish they had no sibling.	.0108	+
6.	Reasons for wishing they had no sibling.	.0038	+
7.	Jealousy of sibling.	1.000	-
8.	Amount of free time spent as companion to sibling.	0.134	-
9.	Feelings about amount of free time	0.265	-
10.	Why adolescent feels he should spend more time with sibling.	.007	+
11.	Amount of time responsible for sibling (babysitting).	.0053	+
12.	Feelings about responsibility for sibling.	.003	+
13.	Parental insistence that adolescent be responsible for sibling.	.5371	-
14.	Responsibility for sibling in the future (when parents no longer able to care for sibling).	.0272	+
15.	Feelings about future responsibility	.2017	-

N.B. This and all subsequent chi-square measures are calculated at the .05 level of significance.

might worry about producing retarded offspring of his own was explored. This seemed to be a concern for over half (56%) of the Sib R group; 44% reported that they never worried about this.

There was no statistically significant difference between the two groups with regards to jealousy of the extra attention a retarded or younger sibling might get. Eighty-eight per cent (88%) of Sib R and 84% of Sib N reported that they never feel jealous whereas 12% of Sib R and 16% of Sib N report that they sometimes feel jealous.

Feelings towards the sibling - Questions four to seven dealt with the adolescent's emotional reactions to their sibling. There were no significant differences concerning the adolescents' feelings towards their retarded or young sibling. Both groups indicated positive (Sib R: 64% and Sib N: 52%) feelings or a mixture of positive and negative feelings (Sib R: 36% and Sib N: 44%). Only one sibling of a normal child reported that he has mostly negative feelings towards his young sibling.

When asked if they ever wish they had no siblings the responses from the two groups showed a statistically significant difference ($X^2 = 6.490$, $P < .0108$, $df = 1$). Seventy-two percent (72%) of the Sib R reported that they "sometimes" wish this, while only 32% of the Sib N reported this. The remainder in each group (28% Sib R and 68% Sib N) indicated that they never wish they had no sibling. Those Sib R who reported that they sometimes wish that they had no retarded sibling give three main reasons: they want a normal brother or sister to do things with, the retardate takes up too much time and the retardate is "hard to handle" or "his behaviour is embarrassing". The few

Sib N who "sometimes wish that they had no younger sibling" primarily gave the reasons that they "fight with" or "get mad at" their sibling a lot.

Free time spent with sibling - Questions eight to ten elicited information about the free time the adolescents spend as a companion or a friend to their retarded or younger sibling. The amount of free time spent as a friend or companion was not statistically different between the two groups. However, a greater number of Sib N (20%) reported that they spend no time at all with their sibling while only one Sib R (4%) reported the same. Forty-eight per cent of Sib R (48%) and 28% of Sib N stated that they spend only one hour a week or less with their sibling. Forty-eight per cent (48%) of Sib R and 52% of Sib N stated that they spend more than ten hours a week as a friend or companion to their sibling. No significant difference was found in the adolescents' feelings about this amount of free time they spend with their sibling. However, more Sib R (64%) felt that they should make an effort to spend more time with their retarded sibling as compared to 44% in the Sib N group who feel this way.

The reasons given why the adolescent feels he should spend more of his free time as a companion to his sibling were significantly different between the two groups ($X^2 = 21.4203$, $p < .0007$, df = 5). The Sib R group reported the following reasons: because the retardate is lonely, because the retardate needs a lot of attention, because the retardate has no friends of his own. The reasons reported by the Sib N group are: because they can help their younger siblings (e.g. to swim, ride a bike) and because there will be less time together as they get older and move away from home.

Responsibility for the sibling - Questions eleven to fifteen dealt with the issues of how much time the adolescent takes responsibility (babysitting, supervision) for his sibling and how he or she feels about this responsibility. A statistically significant difference was found in the amount of time the two groups take responsibility for their siblings ($X^2 = 10.4615$, $p < .0053$, df = 2). No one in the Sib R group was free from babysitting responsibilities, 32% were responsible occasionally and 68% were responsible at least 2-3 times a week. In the Sib N group 32% had no responsibilities, 32% had occasional responsibility and 36% were responsible 2-3 times a week.

A statistically significant difference also appeared in the adolescents' feelings about the time they must take responsibility for or care for their siblings ($X^2 = 15.9259$, $p < .0003$, df = 2). Eighty per cent (80%) of the Sib R group as compared to only 28% of the Sib N group reported that they enjoy taking care of their sibling. Twenty per cent (20%) of the Sib R and 40% of Sib N stated that they do it reluctantly or because they have to (32% Sib N have no responsibility).

Future responsibility for the sibling (in case something should happen to the parents) also showed a statistically significant difference between the two groups ($X^2 = 7.2113$, $p < .0272$, df = 2). When asked if they think they will be responsible for their sibling in the future 8% of the Sib R group reported yes, 75% reported that they do not know and 16% reported no. In the Sib N group, 32% reported yes, 40% reported that they don't know and 28% reported no. The next question asked how they feel about this possible future responsibility. The feelings were almost the same for both groups: 48% Sib R and 56% Sib N were not concerned about it; 40% Sib R and 44% Sib N worried about it only rarely. Three in the Sib R group (12%) reported that they are quite concerned about it.

Interaction with Parents

The following table summarizes the statistical results of responses to questions dealing with the adolescents' interaction with their parents. A more detailed analysis of these findings follows.

Neglect by parents - Questions sixteen to eighteen lent themselves to whether having a retarded or younger sibling interferes with the amount of attention the adolescents receive from their parents. The majority in both the experimental and control group reported that they do not feel neglected by their parents. Eighty-four per cent (84%) of Sib R and 96% of Sib N said no; 16% Sib R and 4% Sib N reported yes, they sometimes feel neglected when their retarded or younger sibling receives a lot of parental attention. However, when asked if they spend as much time with their parents as they would like there was a statistically significant difference between the two groups ($X^2 = 18.7500$, $p < .0001$, $df = 1$) in a direction that was not anticipated. Ninety-two per cent (92%) of Sib R and only 28% of Sib N reported that they spend as much time with their parents as they would like. The remainder in each group, 8% Sib R and 72% Sib N, reported that they would like to spend more time with their parents. Only 16% of Sib R group whereas 36% in the Sib N group indicated that their retarded or younger sibling causes a reduction in the amount of time

TABLE 6

Summary of Results from Part B of Questionnaire: Questions 16 - 30
(Interaction with Parents)

* answered only by Sib R + statistically significant difference

Question		Item Description	Prob.	
16.		Feelings of neglect when sibling gets extra parental attention.	.3458	-
17.		Spend enough time with parents?	.0001	+
18.		Does sibling make it difficult for parents to spend time with respondent?	.2687	-
19.	*	Communication with parents about Mental Retardation.	--	-
20.	*	Understanding of Mental Retardation.	--	-
21.		Parental expectations to help around house	.5580	-
22.		Feelings about doing housework.	.6871	-
23.		School performance.	.3551	-
24.		Parental pressure to do well at school.	.1721	-
25.	*	Parental pressure to do well at school because of retarded child in family?	--	-
26.	*	Father's acceptance of retardate.	--	-
27.	*	Mother's acceptance of retardate.	--	-
28.	*	Parental love shown to retardate.	--	-
29.	*	Has retardate made family different from other families?	--	-
30.	*	How has retardate made family different?	--	-

that they are able to spend with their parents.

Communication in the home about mental retardation - Questions nineteen and twenty, dealing with communication in the home about mental retardation and the adolescents' understanding of retardation, were asked only of the experimental group. Fifty-two per cent (52%) of the Sib R said the subject is discussed often, 32% reported rarely (only when they asked a question) and 16% said it is never talked about in their homes. Moreover, 68% of the siblings of the retarded indicated that they want to learn more about mental retardation while only 32% reported that they "know enough".

Parental expectations - Questions twenty-one to twenty-five were designed to gather data on how the adolescents feel about their parents' expectations for them to help in the home and to do well at school. No significant difference was found in the adolescents' feelings about helping around the house. Seventy-two percent (72%) in both groups felt that "their household duties are fair"; 12% of Sib R felt that "parental expectations are high" while 20% of Sib N feel this way. The remainder in each group reported that they are not expected to help around the house at all. Those who do help in the house, in both groups, reported that they "don't mind" doing it.

The respondents in both groups stated that they are doing "average" or "above average" in school performance with the exception of one Sib R who admitted to being "below average". Although it was not a statistically significant difference, only 12% of Sib R reported that they feel parental pressure to do well at school while 32% Sib N reported a feeling of pressure from their parents. In the Sib R group, this pressure does not appear to be due to the presence of a retarded child in the family: 8% said definitely no, while one person (4%) was not sure. (The control group was not asked if they felt parental pressure is due to presence of a younger sibling in the family.)

Parental reactions to the mentally retarded child - The literature reviewed for this research study suggested that normal siblings will often copy their parents' reactions to the mentally retarded child (Gath, 1972; Grailiker, Fishler and Koch, 1972; Ross, 1972). Questions twenty-six to twenty-eight were designed to help the researcher find out how the adolescents perceive their parents' reactions. The Sib R group indicated that 80% of their fathers "are comfortable" with the retardate and only 12% reported that their fathers "are sometimes upset". (Two families (8%) were fatherless.) Ninety-six per cent (96%) of the group reported that their mothers "are comfortable" while 4% (one respondent) indicated that his mother "is sometimes upset". The total group of Sib R (100%) reported that they believe their parents show enough love and affection to the retarded child.

Does the retarded child make the family different - Questions twenty-nine and thirty probed the siblings' of the retarded perceptions about if and how their family is different from families that do not have a retarded child. Thirty-six per cent (36%) of the Sib R group stated that their retarded sibling does not make their family different; 44% reported that their family is slightly different and 20% reported that the presence of a retarded child in the home has made their family very different. The 64% who reported that the family is either slightly or very different cited both positive and negative differences: twenty-four per cent (24%) reported that their families are more close and loving, 8% indicated that their families are more patient and understanding whereas another 8% said that the family members are more responsible. The negative differences cited include: not enough time to do things together as a family (8%), the parents have too much to worry about (4%), the retardate does not fit in with many of the family's activities (8%) and one sibling reported that a sister had left home because she "could not stand" the retarded child.

Interaction with Peers

The following table summarizes the statistical results of responses to questions dealing with the adolescents' interaction with peers. A more detailed analysis of this data is presented.

Social life - Questions thirty-one to thirty-four specifically dealt with the number of friends the respondents have and whether having a retarded (or younger) sibling interferes with their social life. Both groups responded in the same manner; that is, 92% of Sib R and 92% of Sib N reported that they have as many friends as most people their age. Eight per cent (8%) in both groups reported that they have "only a few friends". Their feelings about their social lives was relatively the same for both the experimental and control groups. Sixty per cent (60%) Sib R and 72% Sib N indicated that their social lives "are good"; 40% Sib R and 28% Sib N reported that "it could be better". This difference was not statistically significant.

When asked if their retarded (or younger) sibling interferes

TABLE 7

Summary of Results from Part B of Questionnaire: Questions 31 - 43
(Peer Interaction)

* answered by Sib R only

+ statistically significant difference in responses at the .05 level of significance

Question	Item Description	Prob.	
31.	Number of friends.	.6022	-
32.	Impression of own social life.	.5505	-
33.	Does sibling interfere with social life?	.0917 marginally	+
34.	How sibling interferes with social life.	.0043	+
35. *	Tell friends about retarded sibling?	--	-
36. *	Feelings about telling friends.	--	-
37. *	Feelings about telling boyfriend or girlfriend.	--	-
38. *	Embarrassment, shame when friends meet the retardate.	--	-
39. *	Why feelings of embarrassment of shame?	--	-
40. *	Reaction to friends' jokes about the mentally retarded.	--	-
41.	Number of extra curricular activities.	.0313	+
42.	Does sibling interfere with activities?	.6022	-
43.	How does sibling interfere with activities?	1.000	-

with their social life a marginally significant difference appeared in the responses of the two groups. More siblings of normal children blamed their younger siblings than Sib R blamed their retarded sibling for interfering with their social life (Sib N: 52%, Sib R: 28%). The Sib N group cited such reasons as having to babysit (8%), too many children in the family deplete the family's finances so "there is not enough money to do things like skiing" (4%), or the younger sibling is a "pest" and "always wants to tag along" (40%). All but one of the 28% Sib R reported that babysitting responsibilities interfered with their social life; the one exception said he didn't like to bring his friends around because they "treated his (retarded) sibling odd" ($X^2 = 15.2000$, $p < .0043$, df = 4).

Peer reactions to the retardate - Questions thirty-five to forty were intended to examine whether the normal siblings tell their peers about the retardate and how they feel about telling. Fifty-two per cent (52%) of the Sib R group reported that they mention their retarded sibling to their friends "only if they have to", 48% indicated that they volunteer the information willingly. All but two (8%) Sib R reported that it does not bother them to tell their friends. The two who were embarrassed indicated that embarrassment is felt especially when telling a boyfriend or girlfriend. Along the same trend, 80% of the Sib R said that they are not bothered when their friends meet the retardate personally whereas only 20% reported some embarrassment or nervousness. The reasons given for this embarrassment were "because the retardate's behaviour is embarrassing" (16%), and because friends treat the retardate "queer" (4%). When jokes are made about mental retardation by their friends 64% of the Sib R reported that they react by explaning about their sibling, 20% reported that they refuse to associate with those persons and 16% stated that they "laugh along with the others".

Extra-curricular activities - Questions forty-one to forty-three lent themselves to the issues of how much the normal siblings participate in peer group activities (sports, clubs, organizations) and whether the presence of a retarded child in the home interferes with that participation. A statistically significant difference was found ($X^2 = 6.9287$, $p < .0313$, $df = 2$) in the number of activities the two groups say they participate in. In the Sib R group, 24% reported that they take part in no activities, 28% reported that they would like to do more while the remaining 48% indicated that they are "active enough". No one in the Sib N group was not involved in some sort of peer group activity, 32% reported that they would like to do more and 68% indicated that they are satisfied with the number of activities they participate in. The Sib R group did not indicate, in 92% of the cases, that their retarded sibling prevents them from participation in group activities whereas, 8% reported that the retardate interferes because of babysitting responsibilities. Identical responses were given by the Sib N. group; that is 8% Sib N reported that having to babysit a younger sibling prevents them from taking part in some activities and 92% reported that a younger sibling does not interfere with their participation.

General Information

Four questions (numbers 44-47) were asked of the siblings of the retarded to find out what they knew about their sibling's retardation and how much professional assistance the family has had in coping with the retardation.

TABLE 8

General Information About the Retarded Child: Questions 44 - 47

* answered by Sib R only

Question		Item Description	Prob.
44.	*	Degree of retardation of sibling.	-
45.	*	Has retardate any physical defects?	-
46.	*	Description of physical defects.	-
47.	*	Has family received professional assistance?	-

Eighty-four per cent (84%) of the siblings reported their retarded brother or sister to be Trainably Mentally Retarded or TMR (IQ 25-50). The remaining 16% stated that their sibling was educable or mildly retarded (IQ 50-80). This finding was to be expected since the school these retarded children attended caters primarily to TMR children. Physical defects were listed for only 56% of the retardates, although it was the researcher's impression that many more had some sort of physical anomaly. In fact, the researcher made note that all but six of the twenty-five retarded siblings were mongoloid. When the normal siblings were asked to describe what they saw physically wrong with their retarded sibling, the responses were very unspecific, e.g. "he has a funny nose", "her eyes are different", or "he is short and overweight". Only one normal sister, who was twenty years old actually used the term Down's Syndrome. An interesting point revealed by the last question was that 84% of the families had received no counselling or professional assistance with the retardation. Four families (16%) had had a one-hour interview with a social worker.

Analysis of Part B When Age, Sex and Socio-Economic Status Are Controlled

The chi-square test of significance used on all the questions in Part B verified that the responses to questions 5, 6, 10, 11, 12, 14, 17, 34 and 41 showed a statistically significant difference between the experimental and control groups. All of the questions in Part B were further analyzed by controlling for the age, sex and SES of the respondents. None of the responses however (except for the nine mentioned above), showed any significant relationships even when these three variables were controlled for. Therefore, responses to only those nine questions where statistically significant differences were found are presented in more detail in this section. Each of the nine questions is presented individually. Tables illustrating which of the three variables (age, sex, SES) show a significant relationship between the experimental and control group accompany each question.

Question 5 "Do you ever wish you had no retarded (or younger) sibling?"

TABLE 9

Responses to Question 5, Controlling for Sex

Response Group	Sometimes		Never		
	Experimental	Control	Experimental	Control	Probability
Males	63.6%	18.2%	36.4%	81.8%	.083
Females	8.6%	42.9%	21.4%	57.1%	.122

N.B. The level of significance used for this and all subsequent tests was the .05 level.

As can be seen from the above table no significant relationship appeared between the males in the experimental and control groups and between the females in both groups when asked if they ever wish they had no retarded (or younger) sibling. The responses given likely occurred by chance alone, independent of whether there was a retarded child in the family.

TABLE 10

Responses to Question 5, Controlling for Age

Response Group	Sometimes		Never		
	Experimental	Control	Experimental	Control	Probability
12-15 yrs.	66.7%	35.7%	33.3%	64.3%	.195
16-18 yrs.	75.0%	42.9%	25.0%	57.1%	.349
19-21 yrs.	83.3%	0	16.7%	100.0%	.024+

When controlling for age, the only significant relationship appeared in the 19-21 year age category. Within this age group approximately 83% of the Sib R and no Sib N reported they sometimes wish they had no retarded (or younger) sibling; all Sib N (100%) while only 16.7% Sib R never expressed this wish. No significant relationship was found between the experimental and control groups in the 12-15 year and the 16-18 year age categories.

TABLE 11

Responses to Question 5, Controlling for SES

Response Group	Sometimes		Never		
	Experimental	Control	Experimental	Control	Probability
I SES	25.0%	50.0%	5.0%	50.0%	.452
II SES	80.0%	27.8%	20.0%	72.2%	.004+
III SES	100.0%	0	0	100.0%	.500

As it appears in the above table there was a significant difference between the two groups in Group II SES when responding to question five. In Group II, 80% Sib R as compared to 27.8% Sib N sometimes wish they had no retarded (or younger) sibling; only 20% Sib R while 72.2% Sib N never wish this. The other two socio-economic status groups showed no significant relationship between the experimental and control groups in response to this question.

Question 6 "Why do you sometimes wish that you had no retarded (or younger) sibling?"

TABLE 12

Responses to Question 6, Controlling for Sex

Response	No Response		Behaviour of Sib is embarrassing, Sib is "hard to handle"		Want a normal Sib, just to see what life would be like		Sib takes up too much time		Other*		
Group	E	C	E	C	E	C	E	C	E	C	p
Males	0	9.1	9.1	0	36.4	0	9.1	0	9.1	9.1	.178
Females	0	0	29.5	0	21.4	0	21.4	7.1	7.1	35.7	.044+

* Other - sibling is a pest
- sibling always wants to "tag along"
- I get mad at Sib a lot
- we fight a lot

A statistically significant relationship appeared only between the females of the experimental and control groups. While 35.7% female Sib N reported "other" reasons for wishing they had no younger sibling, the majority of female Sib R (71.3%) cited reasons that appeared to be related directly to the fact that their sibling is retarded (i.e. because the retarded sibling is hard to handle, or causes embarrassment, because they miss a normal sibling to relate to or because the retardate's behaviour takes up too much time).

TABLE 13

Responses to Question 6, Controlling for Age

Response Group	No Response		Behaviour of Sib is embarrassing, Sib is "hard to handle"		Want a normal Sib, just to see what life would be like		Sib takes up too much time		Other		
	E	C	E	C	E	C	E	C	E	C	p
12-15 yr	0	7.1	26.7	0	20.0	0	13.3	0	6.7	28.6	.074
16-18 yr	0	0	0	0	25.0	0	25.0	14.3	0	28.6	.250
19-21 yr	0	0	16.7	0	33.4	0	16.7	0	16.7	0	.247

When controlling for age there did not appear to be any significant relationship between the two groups in any of the three age categories. Even though these responses do not show a statistically significant difference, they do appear to be on the same trend as those mentioned in the previous paragraph. That is, the reasons given by the Sib R group as to why they wish they had no retarded sibling seem to be related almost exclusively to the retardation whereas Sib N cited reasons related to fairly normal and common sibling conflicts.

TABLE 14

Responses to Question 6, Controlling for SES

Response Group	No Response		Behaviour of Sib is embarrassing, Sib is "hard to handle"		Want normal Sib, just to see what life would be like		Sib takes up too much time		Other		p
	E	C	E	C	E	C	E	C	E	C	
I SES	0	0	0	0	0	0	25	0	0	50	.153
II SES	0	5.6	25	0	30	0	15	5.6	10	16.7	.012+
III SES	0	0	0	0	100	0	0	0	0	0	.500

The above table indicates that responses again followed the same trend as the responses in the previous two sections dealing with question six. That is, the siblings of the retarded in all 3 SES groups reported reasons for wishing they had no sibling, related to their sibling's retardation. On the other hand, the Sib N group's reasons (for sometimes wishing this) were related to more normal sibling conflicts (See list of reasons included in "other" category on Table 12). However the only statistically significant relationship for this trend appeared in Group II of SES.

Question 10 "Why do you feel you should spend more of your free time as a friend or companion to your retarded (or younger) sibling?"

TABLE 15

Responses to Question 10, Controlling for Sex

	No Response		Compassionate Reasons Sib is lonely, Sib has no friends, Sib needs attention		Other--family will not always be together; can help Sib learn		
Response Group	E	C	E	C	E	C	p
Males	0	9.1	54.6	0	9.1	45	.044+
Females	0	0	42.9	0	21.4	35.7	.019+

The above table shows that there was a significant difference between the males of both groups and the females of both groups as to why they feel they should spend more time as a friend to their retarded or younger sibling. Both male (54.6%) and female (42.9%) Sib R cited reasons of compassion while no Sib N gave reasons in this category. The Sib N group (males 45% and females 35.7%) primarily stated that they feel they should spend more time with their sibling because the family "will not always be together" or because they can "help their younger siblings learn" (e.g. swimming). A small percentage of Sib R (9.1% males, 21.4% females also stated that they could help their retarded sibling learn.

TABLE 16

Responses to Question 10, Controlling for Age

	No Response		Compassionate Reasons Sib is lonely, Sib has no friends, Sib needs attention		Other--family will not always be together; can help Sib learn		
Response Group	E	C	E	C	E	C	p
12-15 yr	0	7.1	53.4	0	6.7	21.4	.027+
16-18 yr	0	0	50	0	25	57.1	.050+
19-21 yr	0	0	33.4	0	33.4	75	.393

A significant relationship appeared between the two groups in the 12-15 year and the 16-18 year age categories. Sib R in these two age groups reported reasons of compassion for feeling that they should spend more time as a friend to their retarded sibling while none in the Sib N groups reported similar reasons. The Sib N group primarily stated the same reasons as were discussed under Table 15.

TABLE 17

Responses to Question 10, Controlling for SES

Response Group	No Response		Compassionate Reasons Sib is lonely, Sib has no friends, Sib needs attention		Other--family will not always be together; can help Sib learn		
	E	C	E	C	E	C	p
I SES	0	16.7	50	0	0	33.3	.172
II SES	0	0	50	0	20	38.9	.003*
III SES	0	0	0	0	0	100	.500

The responses to question 10 followed the same pattern when socio-economic status was controlled as they do when sex and age are controlled (Tables 15 and 16). Reiterating this trend, the Sib R group reported compassionate reasons in 50% of the cases (in each of Groups I and II SES) while none in the Sib N group reported such reasons. Those in the Sib N group who stated that they feel they should spend more time with their sibling gave "other" reasons (33.3% in Group I, 38.9% in Group II, 100% in Group III). It is interesting to note that none in Group III in the Sib R group reported that they felt they should spend more time as a friend or companion to their retarded sibling.

Question 11 "How much time are you responsible for your sibling (i.e. babysitting, supervising)?"

TABLE 18

Responses to Question 11, Controlling for Sex

Response Group	No Time		Occasionally (less than 2-3 times per week)		2-3 times per week or more		p
	Exp	Control	Exp	Control	Exp	Control	
Males	0	18.2	45.5	36.4	54.5	45.5	.333
Females	0	42.9	21.4	28.6	78.6	28.6	.009+

The accompanying table (Table 18) illustrated that significantly more female siblings of the retarded are given babysitting responsibilities than are female siblings of normal children (100% female Sib R as compared to 57.2% female Sib N). No significant relationship between males of the experimental group and males of the control group was shown as far as babysitting responsibilities are concerned.

TABLE 19

Responses to Question 11, Controlling for Age

Response Group	No Time		Occasionally (less than 2-3 times per week)		2-3 times per week or more		p
	Exp	Control	Exp	Control	Exp	Control	
12-15 yrs.	0	7.1	20	35.7	80	57.1	.322
16-18 yrs.	0	42.9	50	42.9	50	14.3	.231
19-21 yrs.	0	100	50	0	50	0	.007+

Although the percentage distribution shown in the above table verified that some Sib R in all age categories are responsible for their retarded sibling more often than the Sib N, the only statistically significant relationship was found in thr 19-21 year age category. All Sib R (100%) in this age group reported that they are responsible for their sibling at least occasionally while none in the Sib N group (19-21 years) reported that they are ever responsible for their siblings.

TABLE 20

Responses to Question 11, Controlling for SES

Response Group	No Time		Occasionally (less than 2-3 times per week)		2-3 times per week or more		
	Exp	Control	Exp	Control	Exp	Control	p
I SES	0	0	0	50	100	50	.167
II SES	0	38.9	40	27.8	60	33.3	.008+
III SES	0	100	0	0	100	0	.500

The above table shows that all Sib R in Groups I and III of socio-economic status reported that they babysit their retarded sibling at least 2-3 times a week. Siblings of normal children in the same two socio-economic groups babysit half as much. However, the only statistically significant relationship in response to question eleven appeared in Group II of socio-economic status. All Sib R in this status group babysit their retarded sibling occasionally (40%) or more often (60% 2-3 times per week). Almost 40% Sib N in this group are never expected to babysit whereas no one in the Sib R group is free from babysitting responsibilities.

Question 12 "How do you feel about having to look after (babysit) your sibling?"

TABLE 21

Responses to Question 12, Controlling for Sex

Response Group	I enjoy it		I do it reluctantly, only because I have to		I never do it		
	Exp	Control	Exp	Control	Exp	Control	p
Males	72.7	45.5	27.3	36.4	0	18.2	.242
Females	85.7	14.3	14.3	42.9	0	42.9	.001+

When sex is controlled for, it appears from the above table that the responses to question twelve by females in both groups showed a statistically significant relationship. More Sib R (female) reported that they enjoy the babysitting responsibilities (85.7%) as compared to only 14.3% female Sib N who reported that they enjoy it. Also, more Sib N (42.9%) said that they do it only because they "have to" whereas only 14.3% Sib R expressed this. Again, almost half (42.9%) of the female Sib N group never babysit their sibling while no Sib R is free from babysitting responsibilities. No significant difference appeared in the responses to this question by the males in both groups.

TABLE 22

Responses to Question 12, Controlling for Age

Response Group	I enjoy it		I do it reluctantly, only because I have to		I never do it		
	Exp	Control	Exp	Control	Exp	Control	p
12-15 yr.	80	35.7	20	57.1	0	7.1	.047+
16-18 yr.	75	28.6	25	28.6	0	42.9	.231
19-21 yr.	83.3	0	16.7	0	0	100	.007+

This table shows that Sib R and Sib N in the 16-19 year age group did not differ significantly in their responses to question twelve. However, a difference was found in the 12-15 year and the 19-21 year ago groups. Similar to the responses for the female Sib R, the majority of Sib R in these two age groups (80%, 12-15; 83.3%, 19-21 yrs.) reported that they enjoyed babysitting their retarded sibling. Only 20% in the 12-15 year age bracket and 16.7% in the 19-21 age bracket reported that they did it "reluctantly". Major differences lie in the facts that over half (51.1%) of the Sib N group in the 12-15 year age range babysit reluctantly or because they have to and none in the Sib N group, ages 19-21, babysit.

TABLE 23

Responses to Question 12, Controlling for SES

Response Group	I enjoy it		I do it reluctantly, only because I have to		I never do it		
	Exp	Control	Exp	Control	Exp	Control	p
I SES	50	33.3	50	66.7	0	0	.548
II SES	85	27.8	15	33.3	0	38.9	.001+
III SES	100	0	0	0	0	100	.500

As shown by the above table, no significant relationships were found in the responses by siblings in Groups I and III SES. A significant difference was found however, between the experimental and control groups in Group II of socio-economic status. The difference lies in the evidence that 85% of the Sib R "enjoy" babysitting and only 15% do it reluctantly. The control group on the other hand reported that only 27.8% Sib N enjoy the babysitting responsibilities, while 33.3% do it reluctantly and 38.9% never do it. Again no one in the Sib R group is free from babysitting responsibilities.

Question 14 "Do you think you will be responsible for your sibling in the future?" (i.e. if something should happen to your parents, or when they are too old). ?

TABLE 24

Responses to Question 14, Controlling for Sex

Response Group	Yes		I don't know		No		p
	Exp	Control	Exp	Control	Exp	Control	
Males	0	36.4	72.7	45.5	27.3	18.2	.087
Females	14.3	28.6	78.6	35.7	7.1	35.7	.061

Table 24 shows that the responses to question 14 did not show a statistically significant difference between the males of the experimental and control groups and the females of both groups. However, these results are marginally significant; almost twice as many Sib R as Sib N reported that they do not know whether or not they would be responsible for their sibling in the future.

TABLE 25

Responses to Question 14, Controlling for Age

Response Group	Yes		I don't know		No		p
	Exp	Control	Exp	Control	Exp	Control	
12-15 yrs.	6.7	14.3	80.0	57.1	13.3	28.6	.413
16-18 yrs.	0	71.4	75.0	14.3	25.0	14.3	.061+
19-21 yrs.	16.7	25	66.7	25	16.7	50	.405

Again the above table showed no statistically significant relationship between the experimental and control groups even when age of the respondents is controlled for. However, it is important to note that the majority of Sib R in all age groups do not know what their responsibilities are towards their sibling in the event something should happen to their parents.

TABLE 26

Responses to Question 14, Controlling for SES

Response Group	Yes		I don't know		No		p
	Exp	Control	Exp	Control	Exp	Control	
I SES	0	16.7	50	83.3	50	0	.132
II SES	5	33.3	85	27.8	10	38.9	.002+
III SES	100	100	0	0	0	0	1.00

The only significant relationship shown by the above table lies in Group II of SES. Eighty-five per cent Sib R in this group reported they were unsure of their responsibilities to their sibling (in case something should happen to their parents) whereas only 27.8% Sib N in Group II SES reported this uncertainty. The Sib N were able to report a definite yes (33.3%) or no (38.9%) in response to this question while only 15% of the Sib R group were able to respons definitely yes or nor.

Question 17 "Do you spend as much time with your parents as you would like?"

TABLE 27

Responses to Question 17, Controlling for Sex

Response Group	Yes, enough time		No, not enough time		
	Experimental	Control	Experimental	Control	p
Males	90.6	18.2	9.1	81.8	.003+
Females	92.9	35.7	7.1	64.3	.006+

The above responses indicated that the majority of siblings of the retarded, both male (90.6%) and females (92.9%) feel that they spend as much time with their parents as they would like. On the other hand, male and female siblings of normal children predominantly feel that they do not have enough time with their parents (81.8% male Sib N and 64.3% female Sib N feel this way). These differences were statistically significant at the .05 level of significance.

TABLE 28

Responses to Question 17, Controlling for Age

Response Group	Yes, enough time		No, not enough time		
	Experimental	Control	Experimental	Control	p
12-15 yrs.	86.7	35.7	13.3	64.3	.015+
16-18 yrs.	100	14.3	0	85.7	.015+
19-21 yrs.	100	25	0	75.0	.033+

Again the results showed consistently a significant difference between the experimental group and control group in all three age categories. Significantly more siblings of normal children (64.3% in 12-15 yr. age group, 85.7% in 16-18 yr. group and 75% in 19-21 yr. group) responded that they do not spend as much time with their parents as they would like. Only 13.3% Sib R in the 12-15 year age group reported that they felt this way.

TABLE 29

Responses to Question 17, Controlling for SES

Response Group	Yes, enough time		No, not enough time		
	Experimental	Control	Experimental	Control	p
I SES	100	16.7	0	83.3	.024+
II SES	90	33.3	10	66.7	.001+
III SES	100	0	0	100	.500

When the responses to question 17 were controlled for the socio-economic status of the respondents, statistically significant relationships appeared between Sib R and Sib N in Groups I and II of socio-economic status. Again the majority of Sib R (100% in Group I, 90% in Group II and 100% in Group III) reported that they spend as much time with their parents as they would like. Only 16.7% (Group I) and 33.3% (Group II) of the Sib N group reported the same. Most of the Sib N group (83.3% in Group I, 66.7% in Group II and 100% in Group III) reported spending not enough time with their parents. This was to be the reverse of what was anticipated. Only 10% of the siblings of the retarded in Group II of socio-economic status stated that they did not spend as much time with their parents as they would like.

Question 34 "How does your retarded (or younger) sibling interfere with your social life?"

N.B. Only those who responded in the affirmative to question 33 (Does your sibling interfere with your social life?) answered question 34.

TABLE 30

Responses to Question 34, Controlling for Sex

Response Group	Babysitting responsibility		Reluctance to bring friends home		Other		p
	Exp	Control	Exp	Control	Exp	Control	
Males	9.1	9.1	9.1	0	0	27.3	.231
Females	35.7	7.1	0	0	0	50	.006+

N.B. The responses to question 34 did not imply that the (retarded or younger) sibling interferes more with the social life of either the experimental or control groups. This question is designed only to find out if the reasons for the interference differ significantly between the two groups.

The reasons given as to how the sibling interferes with the adolescents' social life were significantly different for the females of the experimental and control groups. More female Sib R (35.7%) as compared to only 7.1% of female Sib N reported that babysitting responsibilities is the cause of interference; however, 50% Sib N (female) gave "other" reasons such as "always wants to tag along, interrupts, is nosy, listens in on the extension phone".

TABLE 31

Responses to Question 34, Controlling for Age

Response Group	Babysitting responsibility		Reluctance to bring friends home		Other		p
	Exp	Control	Exp	Control	Exp	Control	
12-15 yr.	26.7	14.3	0	0	0	42.9	.019+
16-18 yr.	0	0	25	0	0	42.9	.166
19-21 yr.	33.3	0	0	0	0	25	.239

The only significant difference in responses to this question when controlling for age appeared in the 12-15 age group. Almost twice as many Sib R (26.7%) as Sib N (14.3%) reported that babysitting responsibilities interfered with their social life. And again, the Sib N gave "other" reasons (see Table 30 for explanation of these reasons) in 42.9% of the cases.

TABLE 32

Responses to Question 34, Controlling for SES

Response Group	Babysitting responsibility		Reluctance to bring friends home		Other		p
	Exp	Control	Exp	Control	Exp	Control	
I SES	0	0	0	0	0	50	.167
II SES	30.6	11.1	5.0	0	0	38.9	.017+
III SES	0	0	0	0	100	100	1.00

When controlling for the socio-economic status of the respondents the only significant relationship between the experimental and control groups appeared in Group II of SES. Three times as many Sib R in this socio-economic group (30.6%) as compared to only 11.1%

Sib N cited babysitting responsibilities as a cause of interference with their social life. Again, more Sib N (38.9% as compared to none in the Sib R group) gave "other" reasons.

Question 41 "How many extra curricular activities do you participate in?" (i.e. sports, clubs, group organizations).

TABLE 33

Responses to Question 41, Controlling for Sex

Response Group	As many as others my age		A few--would like more		None		
	Exp	Control	Exp	Control	Exp	Control	p
Males	63.6	72.7	9.1	27.3	27.3	0	.131
Females	35.7	64.3	42.9	35.7	21.4	0	.120

No statistically significant relationship was found between male Sib R and male Sib N nor between female Sib R and female Sib N in response to this question. However, it is important to note that 27.3% male Sib R and 21.4% female Sib R participate in no activities while all respondents in the Sib N group participate in at least a few.

TABLE 34

Responses to Question 41, Controlling for Age

Response Group	As many as others my age		A few--would like more		None		
	Exp	Control	Exp	Control	Exp	Control	p
12-15 yr.	53.3	71.4	26.7	28.6	20	0	.203
16-18 yr.	50	71.4	25	28.6	25	0	.378
19-21 yr.	33.3	50	33.3	50	33.3	0	.435

It appears from the above table that there were no statistically significant relationships between Sib R and Sib N even when age was controlled. Again though it should be noted that no one in the Sib N group does not participate in some extra-curricular activities whereas 20% in the 12-15 year range, 33.3% in the 16-18 year range and 25% in the 19-21 year range within the Sib R group reported that they do not take part in any activities

TABLE 35

Responses to Question 41, Controlling for SES

Response Group	As many as others my age		A few--would like more		None		
	Exp	Control	Exp	Control	Exp	Control	p
I SES	75	83.3	0	16.7	25	0	.335
II SES	45	66.7	30	33.3	25	0	.069
III SES	0	0	100	100	0	0	1.000

Even when SES was controlled, there did not appear to be a statistically significant relationship between the two groups. However, in each of Group I and II, 25% Sib R reported that they do not participate in any activities while no one in the Sib N groups reported non-participation. For those in Group II SES this relationship was "marginally" significant.

In the next section, Part C of the questionnaire (the Lipsitt Self-Concept Scale) is analyzed. Following this, a summary of all the data analysis is given.

Analysis of Scores on the Lipsitt Self-Concept Scale (Part C of Questionnaire)

Certain differences in interaction patterns between adolescents who have a retarded sibling and adolescents who have a normal (younger) sibling have been discovered by the previous analysis of the data. The next step is to determine if these differences in interaction patterns cause differences in the self-concepts of the two groups. The hypotheses established in Chapter 4 (page 43) concerning the relationship between the self-concepts of the experimental group and the control group are tested here using the analysis of variance technique.

Hypothesis One: There is no statistically significant difference between the mean self-concept score of a group of adolescent siblings of retarded children and the mean self-concept score of a group of adolescent siblings of normal children. The mean self-concept scores of the two groups (as measured by the Lipsitt Self-Concept Scale) and the results of the ANOVA test are summarized in the following table.

TABLE 36

Analysis of Variance of Mean Self-Concept Scores of the Experimental and Control Groups

	Experimental Group	Control Group	F Ratio	Probability
Mean Self-Concept Score	84.120	84.880	0.325	.571

As seen in Table 36 there was no statistically significant difference between the mean self-concept of the experimental group and the mean self-concept of the control group at .05 level of significance. Therefore Hypothesis One was accepted as stated.

Hypothesis Two: There is no statistically significant difference between the mean self-concept scores of the two groups when controlling for sex. Table 37 summarizes the results.

TABLE 37

Analysis of Variance of Mean Self-Concept Scores of Experimental and Control Groups While Controlling for Sex

Sex:	Male	Female	F Ratio	Probability
	82.364	86.179	5.939	.019
Within Group Comparison	Male	Female	F Ratio	Probability
Experimental	81.364	86.286		
Control	83.364	86.071	.500	.483

At the .05 level of significance the null hypothesis was accepted as stated. The conclusion was drawn that male siblings of the retarded, as a group did not have a statistically significant different self-concept than a group of male siblings of normal children. The same test also indicated that there was no statistically significant difference between female siblings of the retarded and female siblings of normal children (F: .500, probability: .483).

N.B. The ANOVA results did however indicate a statistically significant difference between the mean self-concept of males and females (F: 5.939; probability: .019). This difference was due probably to the main effects of sex only and had nothing to do with the presence of a mentally retarded child in the family.

Hypothesis Three: There is no statistically significant difference in the mean self-concept of the experimental and control groups when controlling for age. Table 38 summarizes the results.

TABLE 38

Analysis of Variance of Mean Self-Concept Scores of
Experimental and Control Groups While
Controlling for Age

Age:	12-15 yrs.	16-18 yrs.	19-21 yrs.	F Ratio	Probability
	84.172	83.318	86.200	.545	0.584
Within Group Comparison	12-15 yrs.	16-18 yrs.	19-21 yrs.	F Ratio	Probability
Experimental	82.667	87.750	85.333	2.652	0.082
Control	85.786	81.571	87.500		

At the 0.05 level of significance the null hypothesis was accepted. There was no statistically significant difference within the three age categories of the experimental and control groups. (The probability level, although insignificant, can be said to be marginally significant. The difference appeared to be located in the 16-18 year age category. The 16-18 year-olds in the experimental group had higher self-concepts than the 16-18 year-olds in the control group.)

Hypothesis Four: There is no statistically significant difference between the mean self-concept scores of the experimental and control groups when controlling for socio-economic status (SES). Table 39 summarizes the results.

TABLE 39

Analysis of Variance of Mean Self-Concept Scores of Experimental and Control Groups While Controlling for SES

SES	Group I	Group II	Group III	F Ratio	Probability
	83.200	84.789	85.500	0.232	0.794

Within Group Comparison	Group I	Group II	Group III	F Ratio	Probability
Experimental	82.000	84.250	90.000		
Control	84.000	85.389	81.000	1.300	0.283

At the 0.05 level of significance the null hypothesis was accepted as stated. There was no statistically significant difference in the mean self-concepts of the experimental and control groups within the three socio-economic status categories.

Summary of Data Analysis

Part B of the questionnaire was designed to determine if significant differences existed in the interaction patterns of a group of adolescent siblings of the retarded and a group of adolescent siblings of normal children. Part C was intended to reveal if there were differences in self-concept between the two groups. Summarizing, it was discovered that:

1. Adolescent siblings wished they had no retarded sibling more than adolescent siblings of normal younger children. This was especially true for siblings in Group II of socio-economic status. (Question 5).
2. Sisters and adolescents who were in Group II socio-economic

status primarily gave reasons for wishing they had no retarded sibling that were related directly to the retardation (e.g. retardate's behaviour is embarrassing, he is hard to handle, he takes up too much time, or the sibling wants to see what life would be like without a retarded brother or sister). Siblings of normal children gave reasons that appeared to be related to fairly common sibling conflicts (e.g. we "argue a lot", younger sibling is a pest, younger sibling always wants to "tag along"). (Question 6).

3. Siblings of the retarded, especially females, 12-15 years old and those in Group II of socio-economic status reported compassionate reasons for feeling that they should spend more of their free time as a friend or companion to the retarded child (e.g. because the retardate has no friends of his own, because the retardate is lonely or needs a lot of attention). Siblings of normal children who felt they should spend more time with their sibling reported reasons related mainly to the fact that the family will not always be together or to their role as an older sibling who should help teach their younger sibling (to swim or ride a bike). (Question 10).

4. The amount of time spent taking responsibility (i.e. babysitting) for the sibling was significantly different for the two groups. Again, sisters and siblings in Group II of socio-economic status showed the greatest difference in response to this question. Siblings of the retarded spent considerably more time in looking after or taking care of their retarded sibling than a comparable group of adolescents spent taking care of their younger siblings.

All siblings of the retarded had some degree of responsibility while almost one-third (32%) of the siblings of normal children had no such responsibility. (Question 11).

5. How they felt towards this responsibility also differed significantly between the two groups. Siblings of the retarded reported almost exclusively that they "enjoy" babysitting their retarded sibling. The 68% of siblings of normal children who do babysit their sibling reported that they do it because they have to and consequently don't enjoy it.

6. There appeared to be a significant difference between the two groups with regards to their understanding of their future responsibility towards their sibling (i.e. if something should happen to their parents). Siblings of the retarded, especially those in Group II of socio-economic status were unsure of their responsibility while the siblings of normal children knew definitely what their responsibilities would be. Note--some of the siblings (4) were only 12 years old and may not have thought about this responsibility yet. (Question 14).

7. An unusual finding was found in the differences in responses by the two groups to question 17. Nearly all siblings of the retarded reported that they spend as much time with their parents as they would like. The majority of adolescent siblings of normal children reported that they do not. This difference was consistent for both sexes, for all age groups and for Groups I and II of socio-economic status. (Question 17).

8. Siblings of the retarded, again especially females and those in Group II of socio-economic status reported that their retarded

sibling interfered with their social life due to babysitting responsibilities. Siblings of normal children also reported that their younger sibling interfered with their social life; however the reasons they gave implied that their younger sibling does not prevent a social life for them, only clashes with it (e.g. younger sibling is a pest, wants to tag along with my friends, listens in on the extension phone). (Question 34).

9. The number of peer group activities that the adolescents participated in differed significantly between the experimental and control groups. All siblings of normal children reported that they take part in some sort of peer group activity (sports, clubs, organizations) while at least one-quarter of the siblings of the retarded indicated that they participated in none. This finding was especially true for the adolescents in Group II of socio-economic status.

Up to this point the summary has focused on the interaction differences between the experimental and control group. However, it must be reiterated that the majority of interaction patterns examined in Part B were not significantly different for the two groups.

Finally, none of the tests on the self-concept scores reached a statistically significant level. Even when age, sex and socio-economic status were controlled, there were no significant differences in the self-concepts of the two groups. Therefore, all hypotheses were accepted as stated.

The data showed that the differences in interaction found did not lead to any differences in self-concepts of the experimental and control groups. These results will be discussed in the following chapter.

CHAPTER 6

DISCUSSION OF RESULTS

Introduction

The purpose of this study was to determine if the presence of a mentally retarded child in the family interfered with the normal sibling's interactions with his (or her) significant others to a degree where the self-concept of the normal sibling was affected. This inquiry was based on the symbolic interactionist principle that one's self-concept develops, to a large extent, through interaction with significant others. Although the mentally retarded child was not considered to be a "significant other", interaction between the normal sibling and the retardate per se was examined as well because such interaction might also have had an impact on the normal sibling's self-concept. Two groups of adolescents--those with a mentally retarded sibling and those with a normal, younger sibling--were compared on their interaction patterns and their self-concept scores.

Looking back over the research findings, the results showed that there were only nine areas of interaction that were significantly different between the experimental and control groups. However, no significant differences between the two groups on the self-concept measure were found. The present chapter examines these results and attempts to explain why they occurred as they did. Several issues that may have influenced the results of this research are discussed. These include: the framework underlying the study, the sample bias, the Lipsitt Self-Concept Scale, the age relationship between the adolescent and his retarded sibling and finally, the interaction between the normal sibling and his parents, his peers and his retarded sibling.

The Framework

The interactionist theory of self-conception provided a good framework in which to seek answers to the questions posed in this research. However, the results of the data analysis did not lend empirical support to the symbolic interactionist view of self-concept (that is, one's self-concept is developed largely through interaction with significant others in his environment). The data revealed that adolescent siblings of the retarded had self-concepts very similar to adolescents in general despite the presence of a retarded child in the family and some obvious differences in interactions with significant others. Although this framework adequately handled the key concepts of interaction and self-concept development, and the relationship between them, it did not consider many of the antecedent conditions that might have influenced the adolescents' self-concepts (e.g. physical attractiveness, talent, religious orientation). Possibly, these antecedent conditions, if they existed, served to neutralize the negative effects (if any) of disruptive interaction patterns on self-concept. Controlling for all these other factors would give much more accuracy in studying self-conception within the symbolic interactionist framework.

Sample Bias

The sample bias discussed in Chapter 4 might have affected the results of this research study. As was pointed out previously, the brothers and sisters of retarded children who volunteered to participate in this project probably were more well-adjusted and coping better with the problems created by the retardation than many of the siblings of the retarded whom they represented. The fact that the sample was heavily biased towards those who had coped to some extent with the retardation and its meaning and consequences for themselves might have been reflected in their relatively high self-concept scores. (That is, self-concept scores as high as a group of adolescent siblings who had no retarded sibling.) Possibly these adolescents (siblings of the retarded) were aware of their coping abilities and the fact that they were able to handle a major family problem; consequently their feelings of self-worth and confidence diminished the negative effects of having a "deviant" family member. Or on the other hand, because the families from which these adolescents come probably were coping with the problems effectively, there may have been very minimal disruption in the lives of the normal siblings.

The Lipsitt Self-Concept Scale

Another reason why no difference in self-concept between the two groups was found despite differences in interaction could lie in the self-concept scale itself. The Lipsitt Self-Concept Scale used in this study may have been too simple and unrefined to determine real differences between the experimental and control groups. It was very easy for the adolescents to give socially desirable answers or to describe themselves on this scale as they would like to be ("ideal self") rather than as they really see themselves ("real self"). The researcher had no control over these two concerns when using the Lipsitt Self-Concept Scale. However, this scale was chosen because of its ease in administering and scoring and its suitability for a sample with an age range of twelve to twenty years.

Age Relationship Between the Adolescent and His Retarded Sibling

In reviewing the data from Part A of the questionnaire it became apparent that a large portion (76%) of the sample of adolescents in the experimental group were older than their retarded sibling. This fact might have had some implications for many of the results of this study. Older (normal) brothers and sisters have an easier time avoiding identification with a younger retarded sibling than when the retarded child is the oldest (Grossman, 1972:109). Younger children often emulate older siblings which could have negative consequences if the older child is mentally retarded (e.g. younger normal sibling may see himself as defective too). Most of the adolescents in this sample, being older than the retardate, had the opportunity to work out an identity separate from the retardate.

These siblings, being predominantly older than their retarded brother or sister, were able to maintain a typical older sibling role despite the fact that their sibling was mentally retarded. In other words, the normal siblings did not have to re-organize or change their position in the family constellation. When the retarded child is the oldest, role tensions and conflicts sometimes arise as the normal children begin to surpass their retarded sibling in mental abilities. Even though the normal sibling is younger in chronological age, he or she may have to assume the responsibilities and role of an older sibling--a disruption which might lead to tension and anxiety. Most of the sample used in this study were able to avoid this unsettling role-reorganization.

In addition, the older adolescent siblings could more easily step into a parental role towards their retarded brother or sister and possibly gain personal satisfaction or a feeling of helping from this. Assuming somewhat of a parental stance towards the retardate provided them with an acceptable and comfortable way to relate to or interact with the retardate. Helping with the retarded child (e.g. babysitting, supervising) or teaching him (e.g. how to dress) might have given the normal siblings some sense of mastery over the situation, reducing their sense of frustration and helplessness. Moreover, disciplining and controlling the retardate as they (the normal siblings) performed their older sibling or parental role might have allowed an acceptable outlet for any aggression they felt towards the retardate. The role that the normal (older) siblings took towards their retarded siblings could have been personally satisfying and rewarding, instilling them with a feeling of self-worth and competence (and consequently enhancing their self-concepts).

Finally, parents would likely be more accepting of a retarded child if there were already normal children in the family; they would communicate this acceptance to the normal siblings (Grossman, 1972:

190). Also, the normal children would have had a taste of "normal" family life prior to the birth of the retarded child. This might have helped intensify their understanding of what was going on in relation to the retarded child (e.g. why parents seem tense at times, or why family vacations are curtailed). It would seem reasonable to speculate that if the family has accepted the retardation, understands its consequences and is comfortable with it, then the family members would likely carry on with their social interactions (both within the family and with outsiders) as before with minimal disruption.

All of these factors worked in the direction of making it easier for an older brother or sister to cope adaptively with the experience of having a mentally retarded sibling. In short, interaction between a normal older sibling and a retarded younger sibling may not have had many negative effects on the normal sibling; in fact, it is possible that such interaction actually enhanced the self-concepts of the normal siblings by instilling them with a sense of self-worth and of helping effectively with the family's problem.

Interaction With Significant Others (Parents, Peers) and With the Retardate

Many of the siblings of the retarded (64%) reported that their families were to some degree different from families that had no retarded child. However, the differences almost exclusively were in a positive tone, to the extent that these siblings apparently felt that their families were somewhat better than families with no retarded child (more close and loving, more tolerant and understanding than other families). Possibly these families became close-knit in order to meet and cope with the problems created by the retarded child. Consequently, the normal children, in the process of helping out with the retarded child had greater opportunity for interaction with their parents than did siblings of families where there was no retarded child. This may explain why 96% of the experimental group reported that they felt they spent as much time with their parents as they would like whereas the siblings of normal children largely reported that they did not. Another explanation for this finding might be due to the fact that the siblings of the retarded, being aware of the demands that the retardate puts on the parents' time, did not expect too much time from their parents. Or, even if the siblings of the retarded did feel that they did not spend enough time with their parents it is possible that they did not want to expose their feelings of deprivation in this area and bring attention to the fact that their retarded sibling was creating problems for them.

One area of interaction between the parents and normal siblings that was examined in this study and which brought out some interesting findings was the area of communication about mental retardation in the home. Over half the sample admitted that they did not talk about mental retardation with their parents and expressed a desire to learn more about it. Also, the fact that 72% of the siblings were unsure about their responsibility towards the retarded child in the event something should happen to the parents further substantiated the impression that many of these families did not discuss the retardation and its impact on the family to any great extent. Grossman's study showed that coping-effectiveness correlated positively with open discussion in the home about the retarded child (Grossman, 1972:102).

Although this research did not show any relationship between knowledge about mental retardation and the normal sibling's adjustment (specifically self-concept), it was an area of interaction that apparently was limited in these families.

Two of the major differences between the control and experimental groups were found in the amount of time the adolescents spent babysitting their sibling and in the number of peer group activities they participated in. The data showed that siblings of the retarded, especially females and those in Group II of socio-economic status (roughly considered to be middle-class), committed more time and effort to their retarded brother or sister than other siblings committed to their normal younger siblings. Siblings of the retarded also were involved in less peer group activities (32% were involved in none at all) than siblings of normal children. Moreover, the siblings of the retarded stated that babysitting responsibilities were, for the most part, the reason why they were less involved in youth-sponsored activities.

These findings were in keeping with the contentions of several of the authors discussed in the review of literature (Farber, 1968; Gath; 1973; McAllister, Butler and Lei, 1973). That is, sisters were often the ones on whom a major share of the responsibility in caring for the retarded child was put, while brothers were not expected to provide as much help. Also, as Farber has said, the practical problems of caring for the retardate are more of a hardship for middle and lower class families since these families lack the financial resources to pay for assistance and support services needed in dealing with the child's retardation. Consequently, the burden of care falls directly on the family members. Siblings, especially females, in such families are more likely to be affected by the presence of a retarded child in the home than are siblings in upper status families.

Heavy reality burdens caused by the retarded child and borne by the family are often detrimental to the health and well-being of the normal children (particularly the daughters). This makes one wonder if the commitment of time and effort to the retarded child did not allow the normal siblings the time to engage in peer friendships and dating relationships and the freedom to develop generally during these important adolescent years. In terms of interaction, the heavy responsibilities towards the retarded child led to two important differences in interaction patterns between siblings of the retarded and siblings of normal children. First, and most obvious, there was less time for the siblings of the retarded to engage in peer interaction. Second, these siblings were spending an increased amount of time in interaction with a retarded sibling.

In light of this, and the assumption that one's self-concept develops through interaction, why then were there no differences in the self-concept scores between the siblings of the retarded and siblings of normal children? There exists the possibility that the siblings of the retarded were giving "socially desirable answers". Even though they might have truly felt that their retarded brother or sister was ruining their social life they were reluctant to expose this problem to anyone. Or it is possible that the overall emotional benefit of helping the retardate, mastery over the situation, and assisting with the family's problem in a constructive way, outweighed the negative consequences of decreased peer interaction. This may also account for why nearly all the siblings of the retarded reported that they "enjoy" babysitting their retarded brother or sister.

Attention is now turned to the implications that increased interaction with a retarded child might have had on the normal siblings' self-concept. As previously stated, it appears that this particular group of siblings of the retarded were able to avoid identifying themselves with their retarded sibling (the number of perceived similarities was small). Also, despite increased interaction with the retardate, as a friend and companion or as a babysitter, the normal sibling may not have defined the retardate as a "significant other" in his life and remained relatively uninfluenced by interaction with this individual. In other words, the normal sibling's "definition of the situation" was such that the presence of a mentally retarded child in the family was not important enough to have impact on his own behaviour.[3]

The reasons the normal siblings gave for feeling they should spend more time with their retarded brother or sister provided some insight into how these normal siblings view themselves. (Note: the researcher is assuming that the reasons given why the siblings feel they should spend more time as a friend to the retarded child are the same as why they do in fact spend any free time at all as a companion to the retardate.) The reasons stated were compassionate and reflect sympathy for the retardate: "because the retardate has no friends of his own, because the retardate is lonely". These reasons support the literature that found siblings of the retarded to have greater understanding, more compassion, more tolerance for the handicapped than the general population (Grossman, 1972:180). These could be considered positive character traits and consequently, if the siblings of the retarded saw these traits in themselves, they would feel good about themselves--hence a favourable self-concept.

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[3] The way a person decides to act in a situation is preceded by his "definition of the situation", that is to say, his subjective interpretation or point of view about the situation. (Stryker, 1964: 129).

Conclusion

In conclusion, it appears that the adolescent siblings of the retarded who took part in this study do not have significantly different self-concepts than a comparable group of adolescents with normal siblings. Furthermore, the interaction patterns examined were, for the most part, not significantly different between the two groups. Even though a few (nine) differences in interaction did exist, these differences did not give rise to differences in self-concept. Therefore, based on the findings in this study, the conclusion can be drawn that the presence of a mentally retarded child in the home does not interfere with nor undermine the normal siblings' interaction patterns with significant others to the extent that the self-concept of the normal sibling is affected. Also, interaction with the mentally retarded child per se does not appear to have any effect on the normal sibling's self-conception.

CHAPTER 7

LIMITATIONS AND IMPLICATIONS OF THE STUDY

Limitations of the Study

There were seven limiting factors found in this study that require discussion. Some of these have been mentioned previously and will therefore be mentioned again only briefly.

The first limiting factor was that 76% of the retarded siblings were mongoloid children. This fact may have had some impact on how the normal siblings (and their families) reacted to the retardate. Grossman hypothesized that it is easier to adjust to a mentally retarded child who has something physically wrong with him than it is to cope with a child with limited mental abilities but no obvious physical defect (Grossman, 1972:102). One possible explanation for this was that children with physical handicaps presented their families with a more clear-cut need than did children with no physical evidence of disability, thereby reducing the ambiguity of the family members' roles with the child. "It is obvious that a physically handicapped child must be cared for and protected. It may be less obvious what to do with or for a child who has difficulty functioning yet has no apparent physical defect" (Grossman, 1972:102).

A second limiting factor, mentioned earlier in the study, was the sample bias. Due to the necessity of using only volunteers in the research, it was very likely that those siblings of the retarded who participated were well-adjusted to and comfortable with the retardation.

Third, the sample size limited the usefulness of the results of this study. A group of twenty-five was too small from which to make generalizations to the total population of siblings of the retarded. This was especially true considering that this group of twenty-five was further divided into subgroups (based on age, sex and socio-economic status). Also, the larger the sample size, the more reliable the statistical results would have been.

A fourth limiting factor is found in the age spread of the adolescents who took part in the study. The youngest (twelve years old) may not have even thought about some of the concepts that were presented to them (e.g. Do you ever worry about having a retarded child of your own?), while the older siblings had the advantage of greater experience with and understanding of their retarded brother or sister.

Fifth, the researcher used her own judgment in reducing Hollingshead's Occupational Status Scale from seven to three categories. Also, in order to place families in a social status group, more information about the families should have been obtained, such as the father's income and educational level. Therefore, the classification of socio-economic groups in this study should be viewed with some caution.

A sixth limitation lay in the design of the questionnaire itself. The faults of the Lipsitt Self-Concept Scale have been discussed previously in Chapter 6. The questions dealing with interaction (Part B) did not facilitate a full exploration of all aspects of interaction. For example, asking the normal siblings what their lives would be like if the retardate were institutionalized might have given valuable insights into their true feelings towards the retarded child and the impact the retardate had on their interactions with others. Also most of the questions required the respondent to circle one out of three or four responses. It was possible that none of these responses suited the respondent. Therefore, they likely chose the response that came closest to how they actually felt which may not have been very accurate. Given that the conclusions to this study were based on responses from adolescents alone, there is the skepticism about the findings which accompanies the knowledge that "socially desirable" answers might have been given.

Finally, the seventh limiting factor was the underlying assumption of this study. The underlying assumption was that self-concept develops through interaction with significant others (and therefore differences in interaction patterns between the experimental and control groups would lead to differences in self-concepts between the two groups). This assumption was limiting in that many other factors besides interaction (e.g. religion, physical attractiveness, wealth, experiences of success or failure) may also have had a significant impact on how the adolescents assessed or evaluated themselves. These other factors should have been controlled for in order to determine the impact interaction alone had on self-concept development.

Implications of the Study

While no significant differences were found between the control and experimental groups, this study offers suggestions for further research. Also, some implications for helping professionals can be derived from it.

Since the measurements of interaction and self-concept were not fruitful in demonstrating differences between the two groups of adolescents other instruments may reveal such differences. As mentioned previously, many other factors, other than interaction, could have had influence on an individual's self-concept. Therefore, some other measurement of adjustment might have had greater utility in determining the impact a mentally-retarded child has on the lives of his normal brothers and sisters.

Considering only the normal sibling/retarded-sibling relationship there were two areas of inquiry that could be researched further. First, what were the problems faced by the normal sibling who was younger than his retarded sibling and vice versa? Second, were the problems (if any) that arose greater, less, or different when the normal sibling and the retarded child were the same sex as compared to the problems that might have arisen when the two were of the opposite sex? These were two areas not examined in this study but which would require investigation if one wanted an indepth view of what it is like to be the brother or sister of a retarded child.

The implications this study had for helping professionals were many. First and foremost, it was established in the review of literature and further substantiated by the findings of the study that parental reactions to the retardation are of vital importance to the coping ability of the normal children. That is, if the parents had adjusted well and were comfortable with the retardation, it was likely that the other family members were too. Therefore, the importance of helping the parents work through the tragedy and come to terms with it cannot be underestimated.

The siblings in this study showed limited knowledge about their sibling's retardation (e.g. most had to ask parents whether the retardate was trainably, educably or profoundly retarded), expressed a desire to learn more about mental retardation and were uncertain about their future responsibilities towards their retarded sibling. Parents should encourage discussions about the retarded child with their normal children and answer questions openly and honestly. The benefit of this implication is based on Grossman's finding that there is a positive correlation between open discussion about the retardate and high adjustment scores for the normal siblings (Grossman, 1972: 129). However, encouraging parents to talk about the retardation could do serious damage if they had not yet come to terms with it themselves for they would only communicate their shame, discomfort or guilt to their normal children.

Normal daughters in families with retarded children would warrant special attention if they were having to carry a heavy domestic load in caring for the retardate. Parents should be reminded of their daughter's need for freedom to engage in peer activities typical of girls her age. If some sort of allied services (special babysitters, housekeepers, day-care centers for the retardate, etc.) were required by the family in order to give the normal daughter (or any other family member) this freedom, then the helping professional should make every effort to try to find this kind of assistance for the family.

Finally, the researcher, in the process of personally meeting twenty-five adolescent siblings of the retarded, sensed a keen desire on their part to talk about their retarded sibling with someone who "understood" mental retardation. Successful discussion groups for adolescent siblings of the retarded have been organized in other cities. The Mental Retardation Association in the City of Edmonton might do well to organize such a discussion group in this city. This type of contact would be valuable to the normal siblings for many reasons. It could provide them with a much broader perspective on mental retardation, demonstrating to them that they and their families alone have not been singled out to cope with a retarded child, and that there exists a community of people like themselves who share the same kinds of problems.

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APPENDICES

APPENDIX A

ENCLOSURE LETTER

403·432·3824

FACULTY OF HOME ECONOMICS
THE UNIVERSITY OF ALBERTA · EDMONTON, CANADA T6G 2E2

April 1, 1976.

Dear Parent:

Will you please help in a project in which I am sure you will be interested? I need some help in understanding what it is like to be the brother or sister of a retarded child.

The study will attempt to identify specific concerns, if any, that brothers and sisters of retarded children might have and recommend ways and means of helping them to better understand their retarded sibling.

I would like to have a group of teenagers who are the brothers or sisters of a retarded child answer a questionnaire. This questionnaire should take about twenty minutes to complete.

I hope that you will allow your child to participate in the study. Please fill out the enclosed slip and return it to me in the self-addressed, stamped envelope. After I hear from you I will contact you by phone.

I would greatly appreciate it if you would encourage your child to take part in this worthwhile endeavour. Any information you give will be held in complete confidence.

Thanking you in advance.

Sincerely,

Carol Knowles

Carol R. Knowles,
Graduate Student,
Family Studies Division,
University of Alberta.

CRK/gl

P.S. For further information please contact me at 436-3721 or 432-5771.

APPENDIX B

RESPONSE FORM

I am willing to allow my child to participate in the study.

Signed ________________________

Address ________________________

Phone Number ____________________

I do not wish my child to participate.

Signed ________________________

Please mail to: Carol Knowles,
602B Michener Park,
Edmonton, Alberta.
T6H-5A1

APPENDIX C

REMINDER LETTER

403 · 432 · 3824

FACULTY OF HOME ECONOMICS
THE UNIVERSITY OF ALBERTA · EDMONTON, CANADA T6G 2E2

May 25, 1976.

Dear Parent:

During the first week in April I sent a letter to you asking for your participation in a study which will help me to understand what it is like to be the brother or sister of a retarded child. I asked you to return a letter to me if you have a teenager in your family who is the brother or sister of a retarded child and who is willing to take part in the study.

If you have not yet returned this letter I would appreciate it if you could do so as soon as possible.

If you have already returned it I would like to express my sincere gratitude. I am indebted to you for your interest in this project.

I will be contacting you by telephone in the next few weeks to make arrangements for your teenager to answer a brief questionnaire.

Sincerely,

Carol Knowles

Carol Knowles,
Graduate Student,
Family Studies,
University of Alberta.

CRK/gl

APPENDIX D

DEMOGRAPHIC PROFILE OF THE EXPERIMENTAL AND CONTROL GROUPS

Profile of the Experimental and Control Groups According to Age, Sex and Socio-Economic Status (SES) of the Family

	Experimental				Control			
Case No.	Age	Sex	SES	Father's Occupation	Age	Sex	SES	Father's Occupation
1	16	M	II	Policeman	18	M	II	Salesman
2	20	F	II	Salesman	16	F	II	Accountant
3	21	F	II	Farmer	21	F	II	Farmer
4	19	F	II	Storeowner	19	F	III	Construction Worker
5	13	F	II	Electrician	13	F	I	Teacher (Prof.)
6	13	M	I	Social Worker	15	M	I	Teacher (Prof.)
7	16	F	II	Shop Foreman	17	F	II	Baker (Manager)
8	15	M	II	Owner of Construction Co.	16	M	I	Judge
9	16	M	II	Decorator	16	M	II	Teacher (High School)
10	12	F	II	Warehouseman	12	F	II	Contractor
11	21	F	III	Laborer	20	F	II	AGT Technician
12	12	F	I	Engineer	13	F	I	Lawyer
13	14	M	I	Engineer	14	M	II	Radio Announcer
14	12	M	I	Professor	12	M	II	Manager
15	19	M	II	Retired	18	M	II	Retired (Municipal Secretary)
16	17	F	II	Builder	17	F	II	Plant Manager
17	14	F	II	Lab Technician	14	F	II	Sub-contractor
18	15	M	II	Plumber	14	M	II	Civil Servant
19	12	M	II	Farmer	12	M	II	T.V. Technician
20	14	F	II	Plumber	15	F	II	Baker
21	13	M	II	Contractor	15	M	II	Manager
22	15	F	II	Draftsman	15	F	II	Foreman
23	13	F	II	Manager	13	F	I	Teacher (Univ.)
24	13	M	II	Draftsman	14	M	I	Teacher (Univ.)
25	21	F	II	Deceased	21	F	II	Retired
		N = 25				N = 25		

Age: in years
Sex: M = male
F = female
SES: I = categories 1 and 2 of Hollingshead Occupational Status Scale.
II = categories 3, 4 and 5 of Hollingshead Occupational Status Scale.
III = categories 6 and 7 of Hollingshead Occupational Status Scale. (See Appendix E)

APPENDIX E

HOLLINGSHEAD'S OCCUPATIONAL STATUS SCALE

Hollingshead's Occupational Status Scale is part of his Two-Factor Index of Social Position although it is sometimes used by itself as an indicator of a person's social class or position. (Bonjean, 1967:442). Occupations are ranked in seven major categories, going from highest (1) to lowest (7) status.

HOLLINGSHEAD'S OCCUPATIONAL STATUS SCALE

1. *Higher Executives of Large Concerns, Proprietors, and Major Professionals*

A. *Higher Executives* (Value of corporation $500,000 and above as rated by Dun and Bradstreet)

- Bank
  - Presidents
  - Vice-Presidents
  - Assistant Vice-Presidents
- Business
  - Directors
  - Presidents
  - Vice-Presidents
  - Assistant Vice-Presidents
  - Executive Secretaries
  - Research Directors
  - Treasurers

B. *Proprietors* (Value over $100,000 by Dun and Bradstreet)

- Brokers
- Contractors
- Dairy owners
- Farmers
- Lumber dealers

C. *Major Professionals*

- Accountants (CPA)
- Actuaries
- Agronomists
- Architects
- Artists, portrait
- Astronomers
- Auditors
- Bacteriologists
- Chemical Engineers
- Chemists
- Clergymen (professional trained)
- Dentists
- Economists
- Engineers (college graduates)
- Foresters
- Geologists
- Judges (superior courts)
- Lawyers
- Metallurgists
- Military: commissioned officers, major and above
- Officials of the Executive Branch of Government, Federal, State, Local: e.g. Mayor, City man-

ager, City plan director, Internal Revenue director
- Physicians
- Physicists, Research
- Psychologists, practicing
- Symphony conductor
- Teachers, university, college
- Veterinarians (veterinary surgeons)

2. *Business Managers, Proprietors of Medium-Sized Businesses, and Lesser Professionals*

A. *Business Managers in Large Concerns* (Value $500,000)
- Advertising directors
- Branch managers
- Brokerage salesmen
- Directors of purchasing
- District managers
- Executive assistants
- Export managers, international concerns
- Farm managers
- Government officials, minor, e.g. Internal Revenue agents
- Manufacturer's representatives
- Office managers
- Personnel managers
- Police chief; Sheriff
- Postmaster
- Production managers
- Sales engineers
- Sales managers, national concerns
- Store managers

B. *Proprietors of Medium Businesses* (Value $35,000–$100,000)
- Advertising
- Clothing store
- Contractors
- Express company
- Farm owners
- Fruits, wholesale
- Furniture business
- Jewelers
- Poultry business
- Real estate brokers
- Rug business
- Store
- Theater

C. *Lesser Professionals*
- Accountants (not C.P.A.)
- Chiropodists
- Chiropractors
- Correction officers
- Director of Community House
- Engineers (not college graduate)
- Finance writers
- Health educators
- Labor relations consultants
- Librarians
- Military: commissioned officers, Lieutenant, Captain
- Musicians (symphony orchestra)
- Nurses
- Opticians
- Optometrists, D.O.
- Pharmacists
- Public health officers (M.P.H.)
- Research assistants, university (full-time)
- Social workers

3. *Administrative Personnel, Owners of Small Businesses, and Minor Professionals*

A. *Administrative Personnel*

Advertising agents
Chief clerks
Credit managers
Insurance agents
Managers, departments
Passenger agents, railroad
Private secretaries
Purchasing agents
Sales representatives
Section heads, Federal, State and Local governmental offices
Section heads, large businesses and industries
Service managers
Shop managers
Store managers (chain)
Traffic managers

B. *Small Business Owners* ($6,000–$35,000)

Art gallery
Auto accessories
Awnings
Bakery
Beauty shop
Boatyard
Brokerage, insurance
Car dealers
Cattle dealers
Cigarette machines
Cleaning shops
Clothing
Coal businesses
Contracting businesses
Convalescent homes
Decorating
Dog supplies
Dry goods
Engraving business
Feed
Finance companies, local
Fire extinguishers
Five and dime
Florist
Food equipment
Food products
Foundry
Funeral directors
Furniture
Garage
Gas station
Glassware
Grocery, general
Hotel proprietors
Jewelry
Machinery brokers
Manufacturing
Monuments
Music
Package stores (liquor)
Paint contracting
Poultry
Real estate
Records and radios
Restaurant
Roofing contractor
Shoe
Signs
Tavern
Taxi company
Tire shop
Trucking
Trucks and tractors
Upholstery
Wholesale outlets
Window shades

C. *Semiprofessionals*

Actors and showmen
Army, Master Sergeant
Artists, commercial
Appraisers (estimators)
Clergymen (not professionally trained)
Concern managers
Deputy sheriffs
Dispatchers, railroad
Interior decorators
Interpreters, courts
Laboratory assistants
Landscape planners
Morticians
Navy, Chief Petty Officer
Oral Hygienists
Physiotherapists
Piano teachers
Publicity and public relations
Radio, TV announcers
Reporters, court
Reporters, newspapers
Surveyors
Title searchers
Tool designers
Travel agents
Yard masters, railroad

D. *Farmers*

Farm owners ($20,000–$35,000)

4. *Clerical and Sales Workers, Technicians, and Owners of Little Businesses* (Value under $6,000)

A. *Clerical and Sales Workers*

Bank clerks and tellers
Bill collectors
Bookkeepers
Business machine operators, offices
Claims examiners
Clerical or stenographic
Conductors, railroad
Factory storekeepers
Factory supervisors
Post Office clerks
Route managers
Sales clerks
Sergeants and petty officers, military services
Shipping clerks
Supervisors, utilities, factories
Supervisors, toll stations

B. *Technicians*

Dental technicians
Draftsmen
Driving teachers
Expeditor, factory
Experimental tester
Instructors, telephone company, factory
Inspectors, weights, sanitary, railroad, factory
Investigators
Laboratory technicians
Locomotive engineers
Operators, PBX
Proofreaders
Safety supervisors
Supervisors of maintenance
Technical assistants
Telephone company supervisors
Timekeepers
Tower operators, railroad
Truck dispatchers
Window trimmers (stores)

C. *Owners of Little Businesses* ($3,000-$6,000)
- Flower shop
- Grocery
- News stand
- Tailor shop

D. *Farmers*
- Owners (Value $10,000-$20,000)

5. *Skilled Manual Employees*

- Auto body repairers
- Bakers
- Barbers
- Blacksmiths
- Bookbinders
- Boilermakers
- Brakemen, railroad
- Brewers
- Bulldozer operators
- Butchers
- Cabinet makers
- Cable splicers
- Carpenters
- Casters (founders)
- Cement finishers
- Cheese makers
- Chefs
- Compositors
- Diemakers
- Diesel engine repair and maintenance (trained)
- Diesel shovel operators
- Electricians
- Engravers
- Exterminators
- Firemen, city
- Firemen, railroad
- Fitters, gas, steam
- Foremen, construction, dairy
- Gardners, landscape (trained)
- Glass blowers
- Glaziers
- Gunsmiths
- Gauge makers
- Hair stylists
- Heat treaters
- Horticulturists
- Linemen, utility
- Linotype operators
- Lithographers
- Locksmiths
- Loom fixers
- Machinists (trained)
- Maintenance foremen
- Linoleum layers (trained)
- Masons
- Masseurs
- Mechanics (trained)
- Millwrights
- Moulders (trained)
- Painters
- Paperhangers
- Patrolmen, railroad
- Pattern and model makers
- Piano builders
- Piano tuners
- Plumbers
- Policemen, city
- Postmen
- Printers
- Radio, television maintenance
- Repairmen, home appliances
- Rope splicers
- Sheetmetal workers (trained)
- Shipsmiths
- Shoe repairmen (trained)
- Stationary engineers (licensed)
- Stewards, club
- Switchmen, railroad

Tailors (trained)
Teletype operators
Tool makers
Track supervisors, railroad
Tractor-trailer trans.
Typographers
Upholsters (trained)
Watchmakers
Weavers
Welders
Yard supervisors, railroad

Small Farmers

Owners (Value under $10,000)
Tenants who own farm equipment

6. *Machine Operators and Semiskilled Employees*

Aides, hospital
Apprentices, electricians, printers, steam fitters, toolmakers
Assembly line workers
Bartenders
Bingo tenders
Bridge tenders
Building superintendents (construction)
Bus drivers
Checkers
Coin machine fillers
Cooks, short order
Deliverymen
Dressmakers, machine
Elevator operators
Enlisted men, military services
Filers, sanders, buffers
Foundary workers
Garage and gas station attendants
Greenhouse workers
Guards, doorkeepers, watchmen
Hairdressers
Housekeepers
Meat cutters and packers
Meter readers
Operators, factory machines
Oilers, railroad
Practical nurses
Pressers, clothing
Pump operators
Receivers and checkers
Roofers
Set-up men, factories
Shapers
Signalmen, railroad
Solderers, factory
Sprayers, paint
Steelworkers (not skilled)
Stranders, wire machines
Strippers, rubber factory
Taxi drivers
Testers
Timers
Tire moulders
Trainmen, railroad
Truck drivers, general
Waiters-waitresses ("better places")
Weighers
Welders, spot
Winders, machine
Wiredrawers, machine
Wine bottlers
Wood workers, machine
Wrappers, stores and factories

Farmers

Smaller tenants who own little equipment

7. *Unskilled Employees*

Amusement park workers (bowling alleys, pool rooms)
Ash removers
Attendants, parking lots
Cafeteria workers
Car cleaners, railroad
Carriers, coal
Countermen
Dairy workers
Deck hands
Domestics
Farm helpers
Fishermen (clam diggers)
Freight handlers
Garbage collectors
Grave diggers
Hod carriers
Hog killers
Hospital workers, unspecified
Hostlers, railroad
Janitors (sweepers)
Laborers, construction
Laborers, unspecified
Laundry workers
Messengers
Platform men, railroad
Peddlers
Porters
Relief, public, private
Roofer's helpers
Shirt folders
Shoe shiners
Sorters, rag and salvage
Stage hands
Stevedores
Stock handlers
Street cleaners
Struckmen, railroad
Unemployed (no occupation)
Unskilled factory workers
Waitresses ("Hash Houses")
Washers, cars
Window cleaners
Woodchoppers

Farmers

Share croppers

APPENDIX F

EXPERIMENTAL GROUP QUESTIONNAIRE

INSTRUCTIONS - PLEASE READ CAREFULLY!

PLEASE ANSWER EVERY QUESTION HONESTLY AND TRUTHFULLY. IN ORDER FOR THIS STUDY TO BE WORTHWHILE IT IS EXTREMELY IMPORTANT THAT YOUR ANSWERS DESCRIBE HOW YOU REALLY FEEL ABOUT THINGS. YOUR NAME DOES NOT APPEAR ANYWHERE ON THE QUESTIONNAIRE--ALL ANSWERS ARE COMPLETELY ANONYMOUS. DO NOT ASK OTHERS IN YOUR FAMILY FOR HELP WITH YOUR ANSWERS. IF YOU HAVE ANY QUESTIONS, I AM AVAILABLE.

THANK-YOU

PART A

Date ____________

Age (yours) ____________

Sex -- Male ____ Female ____

Father's occupation ______________________________

Mother's occupation ______________________________

Religion ______________________

Grade in school ______________

Number of brothers ________ Their ages ______________________

Number of sisters ________ Their ages ______________________

Age of your retarded brother or sister ________

Sex of your retarded brother or sister ________

PART B

1. Do you feel that in any ways you and your retarded brother or sister are alike?

   (a) Yes, we are very much alike.

   (b) We are alike in only a few ways.

   (c) No, we are completely different.

2. If you answered (a) or (b) in question 1, please explain in what way you are alike.

   ____

   ____

   ____

3. Do you sometimes worry that when you grow up and marry you might have a retarded child of your own?

   (a) Yes, I worry a great deal about this.

   (b) I sometimes worry about this, but not often.

   (c) No, I never worry about this.

4. How do you feel about your retarded brother or sister?

   (a) I love him (or her) very much.

   (b) I have as many good feelings as I have negative feelings about him (or her).

   (c) I have mostly negative feelings about him (or her).

5. Do you ever wish you did not have a retarded brother or sister?

   (a) Yes, always.

   (b) Sometimes.

   (d) No, Never.

6. If you answered (a) or (b) in question 5, please explain why.

____

____

____

7. Are you sometimes jealous of the extra attention your retarded brother or sister gets from others?

   (a) Yes, I think it is unfair to me that he (or she) gets extra attention.

   (b) No, I understand that he (or she) needs extra attention.

   (c) No, I do not think he (or she) gets any extra attention.

8. How much of your free time do you spend as a friend or companion to your retarded brother or sister? (This is the time you spend willingly, not babysitting, etc.)

   (a) I never spend any of my free time with him (or her).

   (b) I spend less than one hour a day with him (or her).

   (c) I spend at least 10 hours a week with him (or her).

9. Do you think you spend enough of your free time as a friend to your retarded brother or sister?

   (a) Yes, I think I spend enough time with him (or her).

   (b) I never spend any time with him (or her).

   (c) No, I think I should spend more time with him (or her).

10. If you answered (c) in question 9, please explain why.

____

____

____

11. How much of the time are you responsible for your retarded brother or sister? (e.g. taking care of him (or her), babysitting).

(a) No time at all.

(b) Only occasionally.

(c) At least 2 or 3 times per week.

12. How do you feel about having to look after him or her?

(a) I enjoy it.

(b) I do it only because I have to.

(c) I never look after him or her.

13. Do your parents insist that you look after your retarded brother or sister?

(a) Yes, my parents insist that I look after him (or her) sometimes.

(b) No, my parents ask me to, but do not force me.

(c) No, my parents never insist.

14. Do you think you will be responsible for your retarded brother or sister in the future? (When your parents are too old to look after him or her.)

(a) Yes, I think I will be responsible for him (or her).

(b) I do not know.

(c) No, I will not be responsible for him (or her).

15. How do you feel about being responsible for him or her in the future?

(a) I am not concerned about this at all.

(b) I sometimes worry about this but not much.

(c) I worry a great deal about how this affect my own life.

16. When your parents give a lot of attention to your retarded brother or sister do you feel neglected?

(a) Yes, I feel that my parents neglect me sometimes.

(b) No, I understand that my retarded brother or sister needs more attention than I do.

(c) No, I do not feel that my parents neglect me.

17. Do you spend as much time with your parents as you would like?

(a) Yes.

(b) No.

18. Do you think that having a retarded child in the family makes it difficult for your parents to spend time with you?

(a) Yes. If so, how ____________________

(b) Sometimes. If so, how ____________________

(c) No.

19. Do you talk about mental retardation and about your retarded brother or sister with your parents?

(a) Yes, we often talk about it.

(b) We only talk about it when I ask a question.

(c) No, the topic is never discussed in our house.

20. Do you think you understand enough about mental retardation?

(a) Yes, I understand all about it.

(b) I understand all I want to.

(c) No, I would like to know more about it.

21. Do you think your parents expect you to help around the house more because there is a retarded child in the family?

(a) Yes, they expect me to do more around the house than I can.

(b) No, I think my duties are fair.

(c) No, they do not expect me to help out a lot.

22. How do you feel about doing extra work around the house?

(a) I enjoy doing it.

(b) I don't mind doing it.

(c) I hate it. Why?____________________________________

23. How are you doing at school?

(a) Extremely well.

(b) Average.

(c) Below average.

24. Do your parents put a lot of pressure on you to do well at school?

(a) Yes, they want me to do better than I think I can.

(b) No, they are satisfied with my school work.

(c) No, they never talk about my school work.

25. If you answered (a) in question 24, do you think this pressure is due to the fact that your retarded brother or sister cannot do well in school?

(a) Yes.

(b) I don't know.

(c) No.

26. Do you think your father has accepted your retarded brother or sister?

(a) Yes, he is comfortable with my retarded brother or sister.

(b) No, he is unhappy about him (or her) sometimes.

(c) No, he is upset about my retarded brother (or sister) most of the time.

27. Do you think your mother has accepted your retarded brother or sister?

(a) Yes, she is comfortable with him (or her).

(b) No, she is unhappy about him (or her) sometimes.

(c) No, she is upset about him (or her) most of the time.

28. Do you think your parents show enough love toward your retarded brother or sister?

(a) Yes, I think they give him all the love he (or she) needs.

(b) Yes, I think they love him as much as they love any of their children.

(c) No, I think my parents should show him (or her) more love.

29. Do you think having a retarded child in the family has made your family different from other families?

(a) Yes, a great deal.

(b) Only slightly.

(c) No, not at all.

30. If you answered (a) or (b) in question 29, how would your family be different if there were no retarded child?

____

____

____

31. Do you have--

(a) as many friends as most people your age?

(b) only a few friends?

(c) no friends? Explain____________________________

32. I feel that my social life is--

(a) as good as others my age.

(b) could be better.

(c) is not good at all.

33. Do you think that having a retarded brother or sister interferes with your social life?

    (a) Yes, all the time.

    (b) Yes, sometimes.

    (c) No, not at all.

34. If you answered (a) or (b) in question 33 please explain how.

    ____

    ____

    ____

35. Do you tell your friends about your retarded brother or sister?

    (a) Yes, I tell all my friends.

    (b) Yes, but only if my friends ask about him.

    (c) No, I tell no one.

36. How do you feel about telling your friends that your brother or sister is retarded?

    (a) It does not bother me at all.

    (b) It embarrasses me a great deal.

    (c) I tell no one.

37. If you have a boyfriend or girlfriend how did you feel about telling him or her about your retarded brother (or sister)?

    (a) It did not bother me at all.

    (b) I was nervous telling him (or her) about my brother or sister.

    (c) I have not told him (or her).

38. Are you sometimes embarrassed or ashamed when your friends meet your retarded brother or sister?

    (a) Yes, all the time.

(b) My friends never meet my retarded brother or sister.

(c) No, I am never embarrassed or ashamed.

39. If you answered (a) in question 38 please explain why.

____

____

____

40. When people I am with make jokes about the mentally retarded--

(a) I laugh along with them.

(b) I refuse to associate with them.

(c) I explain about my brother (or sister) hoping that they will stop making fun of the retarded.

41. How many extra activities do you take part in at school or in your neighborhood? (sports, clubs, etc.)

(a) As many as most of my friends.

(b) Only a few--I would like to do more.

(c) None at all.

42. Do you think having a retarded brother or sister prevents you from taking part in as many activities as you would like?

(a) Yes.

(b) No.

43. If you answered (a) in question 42 please explain.

____

____

____

44. How retarded is your brother or sister? (You may ask your parents about this question.)

(a) Mild (educable, IQ 50-80).

(b) Moderate (trainable, IQ 30-50).

(c) Profound (severely retarded, IQ below 25).

45. Has your brother or sister anything physically wrong with him or her. (Things you can see that are different about him or her.)

(a) Yes.

(b) No.

46. If "Yes" please describe.

____

____

____

47. Has your family ever received counselling or the services of a professional person (doctor, social worker, minister, psychologist, etc.) in helping your family cope with the problems of a mentally retarded child in the family?

(a) Yes. Who? ________________ For how long did the family receive help? ______________________________

(b) No.

PART C

Instructions--Please put a check mark in the spaces which you feel best describe you. Do not leave any blank. BE HONEST!

	NOT AT ALL	NOT VERY OFTEN	SOME OF THE TIME	MOST OF THE TIME	ALL OF THE TIME
1. I am friendly	____	____	____	____	____
2. I am happy	____	____	____	____	____
3. I am kind	____	____	____	____	____
4. I am brave	____	____	____	____	____
5. I am honest	____	____	____	____	____
6. I am likeable	____	____	____	____	____
7. I am trusted	____	____	____	____	____
8. I am good.	____	____	____	____	____
9. I am proud	____	____	____	____	____
10. I am lazy	____	____	____	____	____
11. I am loyal	____	____	____	____	____
12. I am cooperative	____	____	____	____	____
13. I am cheerful	____	____	____	____	____
14. I am thoughtful	____	____	____	____	____
15. I am popular	____	____	____	____	____
16. I am courteous	____	____	____	____	____
17. I am jealous	____	____	____	____	____
18. I am obedient	____	____	____	____	____
19. I am polite	____	____	____	____	____
20. I am bashful	____	____	____	____	____
21. I am clean	____	____	____	____	____
22. I am helpful	____	____	____	____	____

APPENDIX G

CONTROL GROUP QUESTIONNAIRE

PART A

Age ______________

Sex ______________

Father's Occupation ______________________________

Mother's Occupation ______________________________

Religion ____________________

Grade in school ______________

Number of Brothers ____________ Their ages ________________

Number of Sisters ____________ Their ages ________________

PART B

1. Do you feel that in any way you and your brother(s) or sister(s) are alike?

   (a) Yes, we are very much alike.

   (b) We are alike in only a few ways.

   (c) No, we are completely different.

2. If you answered (a) or (b) in question 1, please explain in what way or ways you are alike.

   ____

   ____

   ____

3. (4) How do you feel about your brothers and sisters?

   (a) I love them very much.

   (b) I have as many good feelings as I have negative feelings about them.

   (c) I have mostly negative feelings about them.

4. (5) Do you ever wish you did not have brothers or sisters?

   (a) Yes, always.

   (b) Sometimes.

   (c) No, never.

5. (6) If you answered (a) or (b) in question 4, please explain why.

   ____

   ____

   ____

6. (7) Are you sometimes jealous if and when your brother(s) or sister(s) get extra attention from others?

(a) Yes, I think it is unfair to me when they get extra attention.

(b) No, I am not jealous.

(c) No, my brother(s) or sister(s) do not get extra attention.

7. (8) How much free time do you spend as a friend or companion to your brother(s) or sister(s). (This is the time you spend willingly, not babysitting, etc.)

(a) I never spend any of my free time with him or her (or them).

(b) I spend less than one hour a day with them.

(c) I spend at least 10 hours a week with them.

8. (9) Do you think you spend enough of your free time as a friend to your brothers and sisters?

(a) Yes, I think I spend enough time with them.

(b) I never spend any time with them.

(c) No, I think I should spend more of my free time with them.

9. (10) If you answered (c) in question 9, please explain why.

____

____

____

10. (11) How much time are you responsible for your brother(s) or sister(s). (e.g. babysitting, taking care of them.)

(a) No time at all.

(b) Only occasionally.

(c) At least 2 or 3 times a week.

11. (12) How do you feel about having to look after him or her (or them)?

(a) I enjoy it.

(b) I do it only because I have to.

(c) I never look after them.

12. (13) Do your parents insist that you look after your brother(s) or sister(s)?

(a) Yes.

(b) No.

13. (14) Do you think that you will be responsible for your younger brothers or sisters if something should happen to your parents?

(a) Yes, I think I will be responsible for them.

(b) I do not know.

(c) No, I will not be responsible.

14. (15) How do you feel about being responsible for them in the future?

(a) I am not concerned about this at all.

(b) I sometimes worry about this but not much.

(c) I worry a great deal about how this might affect my own life.

15. (16) When your parents give a lot of attention to your brother(s) or sister(s) do you feel neglected?

(a) Yes, I feel that my parents neglect me sometimes.

(b) No, I understand that sometimes my brothers or sisters need more attention than I do.

(c) No, I do not feel that my parents neglect me.

16. (17) Do you spend as much time with your parents as you would like?

(a) Yes.

(b) No.

17. (18) Do you think having other children in the family makes it difficult for your parents to spend time with you.

(a) Yes. If so, how ________________________________

(b) Sometimes. If so, how ____________________________

(c) No.

18. (21) Do you think your parents expect you to help around the house more than usual because there is more than one child in the family?

(a) Yes, they expect me to help out more than I can.

(b) No, my duties are fair.

(c) No, they do not expect me to help out very much.

19. (22) If you answered (a) in question 18, how do you feel about doing extra work around the house?

(a) I enjoy doing it.

(b) I don't mind doing it.

(c) I hate it. Why? ____________________________

20. (23) How are you doing at school?

(a) Extremely well.

(b) Average.

(c) Below average.

21. (24) Do your parents put a lot of pressure on you to do well at school?

(a) Yes, they want me to do better than I think I can.

(b) No, they are satisfied with my school work.

(c) No, they never talk about my school work.

22. (31) Do you have--

(a) as many friends as most people your age?

(b) only a few friends?

(c) no friends? Explain ______________________________

23. (32) I feel that my social life is--

(a) as good as others my age.

(b) could be better.

(c) is not good at all.

24. (33) Do you think that having brothers or sisters interferes with your social life?

(a) Yes, all the time.

(b) Yes, sometimes.

(c) No, not at all.

25. (34) If you answered (a) or (b) in question 24 please explain.

____

____

____

26. (41) How many extra activities do you take part in at school or in your neighborhood (sports, clubs, etc.)?

(a) As many as most of my friends.

(b) Only a few, I would like to do more.

(c) None at all.

27. (42) Do you think that having brothers or sisters prevents you from taking part in as many activities as you would like?

(a) Yes.

(b) No.

28. (43) If you answered (a) in question 27, please explain.

____

____

____

PART C

Instructions--Please put a check mark in the spaces which you feel best describe you. Do not leave any blank. BE HONEST!

	NOT AT ALL	NOT VERY OFTEN	SOME OF THE TIME	MOST OF THE TIME	ALL OF THE TIME
1. I am friendly	___	___	___	___	___
2. I am happy	___	___	___	___	___
3. I am kind	___	___	___	___	___
4. I am brave	___	___	___	___	___
5. I am honest	___	___	___	___	___
6. I am likeable	___	___	___	___	___
7. I am trusted	___	___	___	___	___
8. I am good	___	___	___	___	___
9. I am proud	___	___	___	___	___
10. I am lazy	___	___	___	___	___
11. I am loyal	___	___	___	___	___
12. I am cooperative	___	___	___	___	___
13. I am cheerful	___	___	___	___	___
14. I am thoughtful	___	___	___	___	___
15. I am popular	___	___	___	___	___
16. I am courteous	___	___	___	___	___
17. I am jealous	___	___	___	___	___
18. I am obedient	___	___	___	___	___
19. I am polite	___	___	___	___	___
20. I am bashful	___	___	___	___	___
21. I am clean	___	___	___	___	___
22. I am helpful	___	___	___	___	___

APPENDIX H

SUMMARY OF CHI-SQUARE RESULTS BASED ON RESPONSES TO QUESTIONS IN PART B OF QUESTIONNAIRE

Summary of Chi-Square Results Based on Responses to Questions in Part B of Questionnaire

Question	Chi-Square Value	Degrees of Freedom	Probability	
1	2.965	2	0.227	N/S
2	3.697	4	0.449	N/S
4	1.510	2	0.469	N/S
5	6.490	1	0.011	Sig.
6	20.966	7	0.0038	Sig.
7	0.0	1	1.000	N/S
8	4.022	2	0.134	N/S
9	2.653	2	0.265	N/S
10	21.420	5	0.0007	Sig.
11	10.461	2	0.0053	Sig.
12	15.926	2	0.0003	Sig.
13	0.380	1	0.537	N/S
14	7.211	2	0.027	Sig.
15	3.201	2	0.202	N/S
16	0.888	1	0.346	N/S
17	18.750	1	0.000	Sig.
18	2.628	2	0.269	N/S
21	1.166	2	0.558	N/S
22	3.697	4	0.449	N/S
23	2.071	2	0.355	N/S
24	1.864	1	0.172	N/S
31	0.272	1	0.602	N/S
32	0.356	1	0.550	N/S
33	4.779	2	0.0917	N/S
34	15.200	4	0.004	Sig.
41	6.928	2	0.031	Sig.
42	0.271	1	0.602	N/S
43	0.000	2	1.000	N/S

Note: 1) Only questions where both groups responded are presented; no statistical tests, other than simple frequencies, were computed on the questions answered only by the experimental group.

2) The acceptable level of significance was the .05 level.

3) N/S = not significant relationship.

4) Sig. = significant relationship.